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ELECTRICAL BUREAU

ANNUAL REPORT

PHILADELPHIA

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SECOND ANNUAL MESSAGE

OF

CHARLES F. WARWICK

Mayor of the City of Philadelphia

WITH

ANNUAL REPORTS

OF THE

DIRECTOR OF THE DEPARTMENT OF PUBLIC SAFETY

AND

CHIEF OF THE ELECTRICAL BUREAU

FOR THE

YEAR ENDING DECEMBER 31, 1896.

ISSUED BY THE CITY OF PHILADELPHIA, 1897.

PHILADELPHIA:
DUNLAP PRINTING CO., 1306-8-10 FILBERT STREET
1897.

Compliments of
David R. Walker,
CHIEF OF ELECTRICAL BUREAU.
PHILADELPHIA.

OFFICE OF THE MAYOR

PHILADELPHIA.

Mayor:
CHARLES F. WARWICK.

Secretary:
JOHN K. McCARTHY.

Chief Clerk:
HARRY C. GILL.

Contract and License Clerk:
JOSEPH F. JONES.

Stenographer and Typewriter:
HENRY W. PEIRSON.

Ass't Stenographer and Typewriter.
HARRY M. FISLER.

Messenger:
WILLIAM G. LEE.

SECOND
ANNUAL MESSAGE

OFFICE OF THE MAYOR, CITY HALL.

Philadelphia, April 5, 1897.

TO THE SELECT AND COMMON COUNCILS
OF THE CITY OF PHILADELPHIA.

GENTLEMEN:—In accordance with the provisions of the Act of Assembly of June 1, 1885, I herewith transmit to your Honorable Bodies this, my Second Annual Message, upon the financial and general conditions of the Municipality. I also send the annual reports of the Directors of the Departments of Public Safety and Public Works, and of the President of the Department of Charities and Correction for the year 1896.

FINANCE.

The City Controller's report shows that the total receipts from all sources for the year 1896 were $27,965,890.26; and that there has been credited a proportion of the moneys due by the State for Personal Property Tax and Schools, in accordance with a resolution of Councils dated January 22, 1897, amounting to $1,459,569.03 making a total of $29,425,459.29. The total expenditures were $29,228,617.82 showing an excess of receipts over expenditures of $196,841.47.

This is an improvement over the condition of affairs as shown by the report made in 1896 for the year 1895, in which year there was an excess of expenditures over receipts.

The net funded debt of the City for the year 1896 is about the same as it was for the year 1895; the report of the Controller for 1896 shows that there is but a slight increase of about $240,000.

The real estate owned by the City of Philadelphia as appraised by the Board of Revision of Taxes for the year 1897 shows an increase over the appraisement of January 1, 1896, of $1,934,600.

The City's credit has been steadily maintained as has been shown during the last year in the sale of her bonds.

The question in relation to the capacity of the City to further borrow money under certain loans authorized by your Honorable Bodies is to be submitted to the Court at an early date for an opinion. It is to be hoped that this matter will reach a speedy termination as many improvements of a pressing and urgent nature are dependent upon a favorable opinion in this case.

Councils very properly passed ordinances providing for the creation of loans having in view the appropriation and expenditure of moneys for important public work, and until this money be made available many improvements will be delayed, and the progress of the City, in a great measure, held in check.

The City has continued to advance and her progress is very perceptible, but it will still require vast sums of money to bring about many improvements that are absolutely necessary and essential to her well being.

DEPARTMENT OF PUBLIC SAFETY.

The present Director of the Department of Public Safety took office on the seventeenth day of February, 1896. He has loyally and intelligently discharged the duties of his office.

Bureau of Police.

On the evening of April 29, 1896, a railway strike was ordered by the Board of Street Railway employees. Every precaution was taken for the preservation of order, and it was known that the authorities were fully prepared and equipped to enforce obedience to law and to maintain the public peace. Fortunately the excitement subsided and the peril passed away.

The police force is under complete discipline, and too much commendation cannot be given to the officers and men for the faithful discharge of their duties.

In this connection let me say that it will be greatly to the advantage of the City to further increase the number of patrolmen. There are some localities that do not receive sufficient police surveillance, and it requires constant and careful watching to provide ample protection. The increased traffic in the centre of the City necessitated the stationing of Reserve officers at street corners and crossings to protect the lives of pedestrians.

It will be seen that the Director in his report suggests that there should be an increase of about seven hundred patrolmen, which would be sufficient to meet every requirement, and would protect not only the crowded sections of the City, but the suburbs as well. Let me say, just here, that the Park Guards should be brought under the direction and control of the Department of Public Safety as provided for by law.

Philadelphia has a large area, and every foot of it if possible should be fully protected and amply guarded.

A most efficient arm of the service is the mounted squad. Not only is this body able to cover extensive beats in the rural sections, but it is of the greatest use in times of excitement and turbulence.

A matter of importance for the consideration of your Honorable Bodies is that provision should be made for the erection of more station houses and the improvement of many of those that now exist.

Bureau of Fire.

This Bureau is in a high state of efficiency, and the heroism so often displayed by the members of the force is worthy of special comment.

I must urge that appropriations be made providing in many instances better accommodations for the men and for the fire apparatus.

The case in which the question has been raised as to the right of the City to appropriate money to the Police and Firemen's Pension Funds has been argued in the Supreme Court, but the opinion has not yet been delivered. It is, however, most anxiously awaited, and, as I stated in my last message, it is to be hoped that the Courts may find some way that will allow the Municipality to make appropriations for the relief of those men who undergo such dangers and perform such heroic work. This is a matter in which the Municipality has a deep interest.

Even brave men will hesitate to assume a risk in the face of danger when they feel that in case of accident or death there is no provision made for them or their families, and surely these men who so often are compelled to imperil their lives in the preservation of the public peace or in the protection of property should, if possible, from simple motives of gratitude and humanity, be provided for in case they meet with injury.

During the last year three deaths of firemen occurred, resulting from injuries received in the actual performance of duty and 190 men sustained injuries.

Electrical Bureau.

The Electrical Bureau is one of the best equipped Bureaus of this character in this or in any other country.

Our Municipal Electrical Plant has attracted attention throughout the world. Its reputation has gone abroad, and strangers visiting this City who are interested in electrical matters make it a point to visit and investigate the plant. After careful and critical inspection it has received the approval and unqualified praise of some of the most scientific men of this and other countries.

The underground system has shown its usefulness and should be continued until overhead wires are entirely removed from the streets.

This system for police and fire service extends throughout the centre of the City, and is most effective in every way. We have, however, but 885 fire alarm boxes, which the Director, in his report, is compelled to say, after careful consideration, is totally inadequate, considering the area of the City. New York has over 2,500 such boxes and I cannot too strongly urge that appropriations be made providing for the extension of this system in all directions throughout the City.

Philadelphia is one of the best lighted cities in this country. We have at this time in use 6,361 electric lights, of which number the City pays for 6,228.

These lights are a great protection to life and property, and it is in no sense false economy to increase the number of lights in every section of the City. This matter involves not only the question of illumination but of protection.

The matter of the establishment of an Electric Light Plant to be owned by the City has not made much progress. An Ordinance was passed by Councils providing for the selection of an expert by the Mayor, one by Councils and another by the two experts so named. Pursuant to that ordinance I appointed an expert, Councils did the same, but the expert named by Councils declined to serve, and subsequently your Honorable Bodies appointed another. The matter is now in the hands of these two experts, to decide upon a third and make report.

Bureau of Health.

The Bureau of Health still maintains its great efficiency and the members of that Bureau deserve the highest praise for the loyal and devoted service they give to the matters that fall under their supervision.

Every section of the City is carefully inspected and every precaution is taken to prevent the spread of disease. It is a matter of congratulation that our City last year was not visited by any epidemic and that its general health was good. Nothing induces to health more than cleanliness, and it may be said that in this direction improved pavements have accomplished much good. Further appropriations should be made by your Honorable Bodies, providing for the paving of the small streets, alleys and by-ways of the City with improved pavements and for underground drainage. During the heated term of last summer arrangements were made to utilize the unoccupied wharves on the river front as places of resort after nightfall for the public in the crowded districts. Benches were procured and the wharves were made places of rest and recreation.

There is nothing that is of greater necessity in all large cities than facilities for bathing, and provisions should be made for the erection of public bath houses throughout the City. This matter has received special attention in the cities of the old world, and the results flowing therefrom have been most useful and beneficial.

Bureau of City Property.

The public squares may be called the lungs of the City; they are the breathing spots, and I am glad to say that much of the land condemned by the City for this purpose has been utilized. There is nothing that so adds to the appearance of a city or is more conducive to health and to the pleasure of the people than public parks.

Independence Hall will soon be restored to its condition as it existed in 1776. Plans have been prepared and arrangements made to go on with the work at the earliest practicable moment, and it is to be hoped that by the end of this year, the work will be almost completed and that this property so restored and improved will be the most interesting historical spot on this continent.

Building Inspection.

I have again to call the attention of your Honorable Bodies to the inadequate force of Elevator Inspectors, as required by Ordinance of April 10, 1894. No action has yet been taken to provide for the carrying out of the provisions of this ordinance. At the lowest calculation it would take 20 Inspectors to do the work required. With our present force it is utterly impossible for us to fully comply with the law, and it must be borne in mind that this is a matter of importance in view of the fact that so many tall buildings are being erected in the centre of the City, and that the elevators in these buildings are being used day after day without that inspection which should be given and which the law demands. It would be better to repeal the ordinance and do away with the inspection altogether rather than to provide for it inadequately.

DEPARTMENT OF PUBLIC WORKS.

The Director of the Department of Public Works is to be commended for his intelligent administration of that most important office. The report herewith annexed gives but a faint idea of the work done under his direction.

Bureau of Gas.

An examination of the report of the Chief of this Bureau shows that the receipts for the year 1896 were $162,188.61 more than during the previous year, or, in other words, they were $3,318,145.08 for 1896 as against $3,155,956.47 for 1895.

The total output of gas was 501,489,580 cubic feet in 1896 more than during the year 1895. The largest amount of gas made in any twenty-four hours was 19,128,000 cubic feet, and the greatest consumption of gas in any one day was 20,010,000 cubic feet, on December 24th.

A number of improvements have been made, including a pumping station at the Twenty-fifth Ward Works, five charging machines at the Point Breeze Works, together with all the necessary apparatus for breaking and conveying the coal to the machines, the erection of a new holder of 3,000,000 cubic feet capacity, the placing of a third lift on the holder at the Germantown Station, and the construction of a Wilbraham 15-horse power vertical exhaust engine at the Manayunk Station, together with the laying of 42.44 miles of mains and distributing pipes.

In order, however, to bring the City's plant to a proper standard, it will be necessary that large sums of money be expended not only in the introduction of additional improved and modern machinery for the manufacture of gas but in the laying of new and larger mains for its proper distribution and the further increase of the holder capacity.

The gas manufactured by the Philadelphia Gas Works is equal in quality with that made in any City of the Union. In other words, the gas in the holder before distribution is a good illuminant of the necessary candle power, but unfortunately, by reason of our method of distribution, when it reaches the consumer it has lost much of its illuminating quality. This is not due to any fault of the gas itself but to the inefficient and insufficient methods of distribution. The gas has to be forced by great pressure through many miles of small sized or inadequate mains, and by reason of this great pressure the candle power is necessarily reduced because of the excessive friction to which the gas is subjected; it is thereby robbed of its hydro-carbon, which is its light giving quality. This matter of distribution should be taken up and considered with the greatest care, and perhaps it would be advisable under all the circumstances to have an estimate made of the cost that would be involved in effecting the desired changes. Plans should be drawn showing the location, the capacity and the life of the mains, in order that this work may be done systematically and economically. For instance, in one section of the City leading from the Gas Works to supply a certain locality, years ago, a three inches main was laid, which was in that day considered of sufficient size and capacity, but as population increased and passed beyond the limit of the original calculation it was necessary to further extend the main and a six inches main was added, and subsequently, to supply the still growing demand, an eight inches main was laid; thus we have three different sized mains joining each other and used for the purpose of distributing the gas, when in truth and in fact a 20 inches main for the proper distribution of gas in that locality is absolutely required. The fault does not lie in the manufacture of our gas, which is produced from the best coal that can be purchased for the purpose and with the application of scientific methods but in the inadequate and insufficient means of distribution, and until better methods be adopted there can be but little if any improvement.

The Gas Works are a most valuable asset and should never pass from the absolute control of the City. The plant is valued at about $30,000,000, close to the actual debt of the City at this time, and money will be well expended if the changes suggested are carried out.

Bureau of Highways.

The highways of the City of Philadelphia are not surpassed by those of any City on this Continent, but work in this direction cannot be continued to any great extent until the City is able to negotiate the loans provided for by ordinance of Councils approved July 16, 1896.

There is nothing that so characterizes a City and gives it a reputation as clean, well paved and well lighted streets. They make travel easy and safe and comparatively noiseless, thus adding to the comfort, convenience and the health of all the citizens.

Under the head of the Bureau of Health I have already referred to the paving of the small streets, but in this connection I desire to say that nothing so induces to cleanliness and comfort in a large City as the paving with asphalt of all the narrow thoroughfares, and this work should go on without interruption until every court and alley is in that condition which will prevent the accumulation of filth, or at least make its removal comparatively an easy task.

Bureau of Street Cleaning.

The work of this Bureau is being carefully supervised, and it is a matter of gratification to know that the complaints of all kinds were 1,815 less than during the year 1895 ; or, in other words, they fell off about one-half from the number made the previous year. It is the purpose of the authorities to insist upon a strict compliance with the specifications, and to enforce a rigid obedience to the terms of all contracts.

The authorities cannot act alone in this matter of street cleaning and much depends upon the intelligent co-operation of the citizens. The sweeping of refuse into the streets is a clear violation of law, and when receptacles for ashes are placed upon the sidewalks the contents should be at least three or four inches below the top of the barrel. The observance of a few rules in these particulars will do much towards assisting the authorities in the keeping of the streets in a cleanly condition.

There should be an ordinance passed providing an appropriation for the removal of snow from the principal business streets in the centre of the City. The suggestions made by both the Director of the Department of Public Safety and the Director of the Department of Public Works in this regard are worthy of careful consideration. As it stands to-day there is no ordinance providing for such removal.

Bureau of Surveys.

One of the most important pieces of work in hand at this time is the construction of the Pennsylvania Avenue Subway and Tunnel. The preparatory work incident to this improvement required the preparation of elaborate plans at the hands of this Bureau. The questions involved were intricate and called for careful and scientific study. $4,500,000 of the loan authorized for this purpose has been utilized up to this time. Proposals for the greater part of the work were received after public advertisement on May 12, 1896, the contracts were awarded, and have been most actively pushed forward.

The winter weather unfortunately has in a measure interfered with the progress of the work, but so soon as the weather permits the work will be most vigorously pushed to completion. It is one of the greatest improvements that the City has ever undertaken. It will not only result in great convenience to the public, but will materially enhance the value of property in the immediate neighborhood of the improvement; at the same time it will provide a safe and beautiful access to Fairmount Park and abolish many dangerous grade crossings.

The work of deepening the channels of the Delaware and Schuylkill rivers has been industriously carried on whenever the weather would permit. From Schooner Ledge, in the Delaware river, there have been removed 95,000 cubic yards of overlying material and 3,455 cubic yards of rock. The excavations have been made so as to give 26 feet clear water depth for the full width of the channel. Under the appropriation of $500,000 made by Ordinance of Councils, approved April 13, 1896, from the loan authorized January 13, 1896, surveys have been made and plans prepared for dredging at Greenwich Point, Mifflin Bar, and Schooner Ledge, and every arrangement has been made to begin the work as soon as possible.

The work of widening Delaware avenue and the extension of the City piers is well under way. Plans and specifications have been drawn and the work will be pushed to completion.

This improvement will be of incalculable benefit to the Commerce of the City, and in thus giving facilities for navigation it is to be hoped that much of the trade that has left Philadelphia will again return. Many of the owners of the property on the Delaware river front have shown a most commendable spirit in uniting with the authorities in helping forward this great project.

These matters to which I have referred under the head of the Bureau of Surveys are given in detail in the report of that Bureau, and are worthy of careful consideration.

Let me urge upon your Honorable Bodies the necessity of providing sufficient appropriations for the further construction of main and intercepting sewers. Much of the work of this Bureau in the construction of sewers is hidden from view, and improvements not seen are not sufficiently appreciated ; but nothing so conduces to the health of a community as an extensive and scientific system of main and intercepting sewers. To make the system complete it will require at your hands in the neighborhood of $2,000,000, but money so used will bring an adequate return for every penny of outlay.

Bureau of Water.

The Report of the Bureau of Water for the past year shows an increase in receipts of $49,276.09 over the year 1895. The total receipts for 1896 were $2,879,133.26, and the expenditures for the same period were $1,825,610.89, showing a net revenue of $1,053,522.37 over all expenditures, both for permanent improvements and the cost of maintenance.

In 1896 there were 37 miles of additional distributing mains laid, making in all 1,212 miles of water-pipe now in use by the City. The work of relining the south basin of the Queen Lane Reservoir has been completed, and on September 10, 1896, water was turned into that basin. The work on the north basin was in progress when the cold weather compelled a cessation. We are now furnishing water from that Reservoir to a locality which heretofore has been compelled to depend upon direct pumpage from the river.

It is of the utmost importance that provision should be made for the construction of a reservoir to supply the people of West Philadelphia; this matter should be taken up and considered at the earliest possible moment. When we have a complete system of subsiding basins and a filtration plant that will answer the purpose, the question of a pure and adequate water supply for our City, for many generations at least, will be settled. The supply and the quality of the Schuylkill water will then meet every demand and requirement. The selection, however, of a filtration plant is one that should be most carefully considered, and experiments should be scientifically made before a final decision is reached.

A supply of pure potable water is the greatest need of our City at this time. The supply has been very much improved by the construction of subsiding basins, and it remains alone for us to introduce a system of filtration that will make that supply pure and healthful. The people are interested in this question, and, so soon as it is decided that the City can create a loan, the matter should be undertaken with an eye single to the introduction of the best plant or system that can be adopted.

Another matter in relation to the use of water to which I desire to call your attention is the necessity of legisla tion providing against its waste. The ordinance of July 25, 1872, providing for the introduction of meters into mills and factories where water is used in great quantities for manufacturing purposes is defective in that it requires the consent of the mill owner before the meter can be introduced. Taking in view the increase in our population, there must be some provision made against the wasteful use of our water supply. Unless this be done, the time will come when our supply, no matter how great it may be, will fall short of the demand. If we insist upon measuring our gas, there is no reason why we should not measure our water. It has been stated, and no doubt the statement is based upon truth, that there is more water wasted than is legitimately used.

If there were but little waste, the demand upon our reservoir capacity would be lessened, and this in a great measure would result in furnishing a better quality of water to the consumer.

DEPARTMENT OF CHARITIES AND CORRECTION.

The members of this Department have given their time and devotion to the public service without remuneration save the satisfaction which comes to an official who faithfully performs his duties.

In my last message, I said it would be of great advantage to the Almshouse if it could be removed from its present situation, as that section of the City in which it now stands is improving rapidly and filling up with a new population. It would be a vast improvement if this removal could be effected.

The removal of the Almshouse to the rural districts would provide better and cleaner accommodations for its inmates. Its removal would add greatly to the advantage of the City and the institution.

The Philadelphia Hospital is not included in this suggestion, and should remain in its present location. Both institutions, the Almshouse and Philadelphia Hospital, would be greatly benefited by their separation.

It would be a wise measure to provide for the consolidation of all the poor districts in this county, and place them under the control of the Department of Charities and Correction. The Almshouse at present is overcrowded, while some of the poor houses have comparatively but very few inmates, and they could be used most advantageously by the City to relieve the overcrowded condition of the Almshouse proper. A bill has been offered in the present Legislature providing for such consolidation, and if Councils would pass a resolution urging the passage of that measure, it no doubt would have a good effect and bring about a result which would be of great benefit at this time.

The progress made by the Free Library since its establishment has been most remarkable, and the people have shown their appreciation of its usefulness.

By a reference to the report of the Board of Trustees fort he year ending September 30, 1896, it will be found that the circulation has reached 1,293,004 volumes.

No institution in this country of a similar character can equal this record. The results have been most beneficent, and speak well for the intelligence of our community.

The success of the library has even surpassed the expectations of its most sanguine friends.

In view of this unparalleled success, your Honorable Bodies will have every reason to provide most liberal support in the matter of future adequate appropriations.

The Commercial Museums have already brought us in touch with the business interests of the world. They have been most useful to merchants and manufacturers, and the exhibits give many lessons daily in those matters with which our business men could not so easily familiarize themselves without the existence of such an institution in our midst. The reputation of the museums has gone abroad, and has done much to advance the commercial importance of our City. They have brought many strangers here who have been impressed with the importance and usefulness of these institutions, and already movements are on foot in another large city to establish museums of like character, and it remains with us as Philadelphians to support them in every honorable way and to maintain their supremacy and usefulness.

In my message I have not gone into details, but have only touched upon those questions which appeal to me as most important, urgent and pressing at this time.

I desire to take this occasion to thank the Select and Common Councils for the loyal and generous support which they have at all times given the administration in its efforts to advance the interests of our great City. If we continue to work together with one purpose, having but one object in view, our united efforts must necessarily reach important results. Together we will be able to accomplish much for the interests of our City, and the honor will be ours to enjoy in common.

I hope that in the future, as in the past, I may receive your loyal assistance in urging forward those improvements that will promote our City to the first position in her rank.

There are some matters to which we should give our early and persistent attention; the improvement of our water supply, increased facilities in the matter of the distribution of our gas, the further extension of paving as well in the courts and smaller streets as upon the principal highways, additional police protection in every section of the City, the building of main and intercepting sewers, adequate provision for the support and maintenance of the Free Library and the Commercial Museums, and last, but by no means least, ample school accommodations for our children.

These are improvements that will materially add to the comfort and prosperity of our people, and redound to the credit and honor of our City.

I am, respectfully,

CHAS. F. WARWICK,

Mayor.

ANNUAL REPORT

OF THE

Department of Public Safety

FOR THE

Year ending December 31, 1896.

OFFICERS

OF THE

Department of Public Safety,

December 31, 1896.

Director,

FRANK M. RITER.

SECRETARY—JAMES HOYT.
BOOKKEEPER—HIRAM HORTER, JR.

Chiefs of Bureaus:

POLICE—ROBERT J. LINDEN, Superintendent.
FIRE—JAMES C. BAXTER, JR., Chief Engineer.
ELECTRICAL—DAVID R. WALKER.
CITY PROPERTY—A. S. EISENHOWER.
BUILDING INSPECTION—WILLIAM C. HADDOCK.
BOILER INSPECTION—JOHN OVERN.

MEMBERS OF BOARD OF HEALTH.	
	DR. WILLIAM H. FORD, President pro-tem,
	DR. PETER D. KEYSER,
	ANTHONY A. HIRST,
	ALBERT C. DINGEE,
	COL. J. LEWIS GOOD,
	FRANK M. RITER, President ex-officio.

JOHN J. McCAY, Chief Clerk.

TENTH ANNUAL REPORT

OF THE

DEPARTMENT OF PUBLIC SAFETY.

FRANK M. RITER, Director.

Philadelphia, February 1, 1897.

HON. CHAS. F. WARWICK,
Mayor of the City of Philadelphia.

DEAR SIR:—In accordance with the Act of Assembly I herewith transmit a summary of the operations of the Department of Public Safety, together with the reports of the Chiefs of the several Bureaus embraced therein, for the year ending December 31, 1896.

You appointed me and I took office as Director of the Department of Public Safety on the Seventeenth day of February, 1896.

The Hon. Abraham M. Beitler, my predecessor, surrendered to me a thoroughly organized Department, its various Bureaus working in harmony and a fine morale pervading them all.

Bureau of Police.

On the evening of April 29, 1896, a street railway strike was ordered by the Central Board of Street Railway Employees. Precautions were taken for the preservation of order. Viewing the strike from the standpoint of a public disorder this strike was a subsidence of the disturbances which took place in December, 1895. No unusual care was required after May 1.

The total number of arrests for all offences during the year 1896 was 58,072, showing a decrease of 2,365 from the year 1895.

Arrests for intoxication, and intoxication and disorderly conduct were 23,107, showing a decrease of 3,970 from the year 1895:

Forty-nine thousand four hundred and thirty-eight lodgers were accommodated at the various district station houses during the year, being 3,650 more than on the previous year. These unfortunate men and women are universally treated with kindness by the police force and everything is done that can be to make them comfortable during the night.

Many of the station houses in use are inadequate for the purpose and the needed improvements should be made. A number of additional station houses should be built which comprehends, of course, a marked increase in the police force. An increase of about seven hundred patrolmen would I believe meet the needs of Philadelphia for some time. The total number available for street duty at present is 2,037. The beats are much too extensive to be properly covered. There is a marked absence of sufficient police force in the centre of the City to which comes during the day or night so large a percentage of the moving public of the City. At the earliest moment possible an effort will be made to remedy this by increasing the Reserve force covering Market and Chestnut streets, from the Delaware river to Fifteenth street, and increasing the force in the districts comprehended in this vicinity, so that all persons and property therein may receive adequate protection.

While there are now twenty-two police patrol stations, this number should be increased so that each district station may have its separate patrol service.

The mounted service should be extended considerably beyond its present use. They are of the greatest service to the rural districts and upon an occasion of unusual disturbances have proved themselves to be invaluable.

The use of the bicycle has taken such rapid and firm hold upon the community, being used so extensively in the pursuit of health and pleasure and in business that it has somewhat disturbed prior conditions affecting travel. Many of our greater highways are paved with asphaltum and in certain seasons of the year are almost a parade from early morning until late at night. This has necessitated the formation of a bicycle squad of the police force, which it is my intention, as far as possible, to materially increase.

The unusual number of vehicles (this to be used in its generic sense and to include bicycles and all other kinds of conveyance) has made travel by pedestrians across some of our broad thoroughfares at points attended with danger. The confusion thus arising, it is hoped, will grow less with the permanent use of the bicycle and recognition by the few reckless riders of the dangers to which they are subjecting themselves as well as others.

The work of the detective force has been in the main most satisfactory. It is small and it has had to be augmented by detailing a certain number of patrolmen as detectives. These men have been selected for their efficiency and intelligence and it is the natural and legitimate school for promotion to the detective force. An Item should be inserted in future annual appropriations providing the legitimate and necessary local expenses of this force.

Vacant houses increase the difficulties of the work of the police force. During the summer months 10,466 houses were vacant. Forty-six of these houses were at different times entered and goods amounting in value to $4,120 were stolen. Goods to the value of $2,470 were recovered.

The number of patrolmen employed at different times throughout the year for quarantine purposes was 1,104.

The profits of pool selling are supposed to be so great and the public so ready to risk its money, that it has required the greatest vigilance to keep the rooms in which bets are taken upon races, from proceeding with their demoralizing business. Every effort has been made, and with great success, to prevent them from carrying on their illegal trade. It is impossible to successfully carry on pool rooms without the employment of telegraph and telephone apparatus, and I am glad to be able to inform you that I have received assurances from the responsible managers of the respective telegraph and telephone Companies in this City, that they will not supply the service to carry on this unlawful occupation.

In substance the same may be said of "speak-easies." The constant vigilance of the police is directed to prevent this evil.

It is with great pleasure that I am able to state that I find a ready disposition on the part of the police force to pay greater attention to the arduous duties imposed upon them. In all the difficulties of responsible work they have my greatest sympathy.

The medical emergency corps have developed into a body of great activity and usefulness.

The following members of the police force have been commended for meritorious conduct during the year :

Name.	Rank.	District.
William Sauers	Patrol Sergeant	Seventh.
Walter Scott	Patrolman	Ninth.
Joseph Perrine	Patrolman	Ninth.
Harry Loane	Patrolman	Ninth.
John Cahill	Patrolman	Eleventh.
John Herd	House Sergeant	Twelfth.
George W. Miller	Patrolman	Twelfth.
James Stine	Patrolman	Sixteenth.

Name.	Rank.	District.
Daniel Davis	Patrolman	Sixteenth.
Harry Karcher	Patrolman	Sixteenth.
Adam Brey	Patrolman	Eighteenth.
John Boehm	Patrolman	Twenty-third.
William Schweibenz	Patrolman	Twenty-third.
John Schaffer	Substitute	Twenty-fifth.
Charles McNaulty	Patrolman	Twenty-eighth.
John H. Nece	Patrolman	Twenty-eighth.
Andrew Mahaffey	Patrolman	Twenty-eighth.
Robert Lockhart	Patrolman	First.

Also the officers and crew of Delaware Harbor boat No. 2 (Visitor), who on Sunday afternoon, May 10, 1896, rescued four persons from a capsized yacht off of Greenwich Point.

The Woman's Branch of the Pennsylvania Society for the Prevention of Cruelty to Animals presented medals to the following officers :

Patrolman Mark Reeves, Twenty-ninth District, Gold Medal.
Patrolman James Ganley, Twenty-ninth District, Silver Medal.
Patrolman James Walch, Twenty-ninth District, Silver Medal.

Fire Marshal.

The total number of fires was 2,612, an increase of 580 over the preceding year, and a loss sustained of $2,439,531. Being an increase in loss of $798, 644.00 over the prior year.

But one person has been convicted for arson and that was for setting fire to the building No. 212 South Eighth street, Benjamin F. Steiner, was convicted and sentenced to two years in the County Prison.

Other arrests were made but were followed by acquittals.

Meat Inspection.

During the past year 135,189 head of cattle were inspected and of this 172 were condemned and killed as diseased animals ; 142 from Tuberculosis and 5 from Actinomychosis and 25 from other diseases. Thirty-five thousand three hundred and seventy-two calves were inspected and 2,156 live calves were condemned as being too young and unfit to sell for food.

Bureau of Fire.

A detail statement of the various fire companies, apparatus and men, the number of alarms answered during the year will be found in the accompanying report of the Chief of the Fire Bureau.

The efficiency of the Bureau was never at a higher point. The necessities of our City, however, make it incumbent upon me to urge a marked increase in the number of fire companies protecting portions of the City that are now remote from any located company, taking in largely the entire circumference of the City, together with companies added in the more recently built up portions of the City.

For the protection of the exceedingly high buildings which have been and will likely be erected, a greater supply of water is required. Large mains should be laid from the Delaware river to Broad street, on Market, Chestnut, and Arch streets, with a pumping station at the Delaware river for the purpose of giving direct pumpage of great volume and force in case of fire ; and a similar line of mains be laid to run from the Schuylkill, eastward to Broad street, on the same streets with a pumping station located on the Schuylkill. Numerous plugs could then be placed connecting with these mains, which would throw a very great stream of water, even without the employment of the steam fire engines. By the employment of a proper series of valves the entire pressure at the pumping station could be put upon any one of these streets, or divided, as required.

A fire boat drawing less water should be added to the fire equipment, which would be able to throw a stream further than any of our present boats in present use. This will be made necessary by widening Delaware avenue, which increases the distance from the wharf line to the buildings.

The present accommodations for many of the firemen are quite insufficient for their comfort and health, and I desire to urge your Honor to call upon Councils for such an appropriation as will enable the old and dilapidated houses to be torn down and new ones erected in their place, or in the vicinity in which they now are.

I regret to have to record that during the year, three deaths occurred in the Bureau in the performance of duty, and 190 injuries were sustained by the firemen. Of the deaths caused from injuries received at fires, I regret to inform you that Assistant Engineer William Staiger, and ladderman Hugh McGranighan were killed at the fire at Thirty-second and Market streets, on April 18, 1896, and that Ellwood Deaver lost his life at a fire in Strawberry alley on December 31, 1896.

The case involving the right of the City to appropriate money to the Police Pension Fund and the Firemen's Pension Fund has been argued in the Supreme Court, a decision of which is awaited with the greatest anxiety.

Those benefiting from the Fund of this Bureau are, three foremen, one engineman, seventeen hosemen, three widow with three children each, three widows with two children each, and two widows with one child each and five widows and two parents, making in all, forty-nine persons. The sum of $11,397.21 was paid to these beneficiaries in the year 1896.

Bureau of Building Inspection.

This Bureau is steadily advancing in importance and dignity and comprehends annually a vast deal of important work.

The record of the last year, as shown by the following table, gives an idea of the very great work accomplished by this Bureau :

Number of Permits, Operations and Estimated Cost by Months for the year 1896.

Month.	Permits.	Operat'ns.	Estimated Cost.
January	357	574	$815,980
February	405	732	1,391,635
March	588	1,391	3,156,310
April	886	2,094	3,796,415
May	779	1,699	3,769,330
June	657	1,195	1,940,840
July	615	1,267	3,041,565
August	567	943	2,800,855
September	676	1,016	1,363,610
October	755	1,026	1,108,190
November	544	761	1,085,690
December	391	533	548,980
Totals	7,220	13,231	$24,819,700

Notwithstanding the vigilance of the Inspectors there are a number of persons who illegally undertake work without a permit. This is evidenced by the fact that there were 625 condemnations issued during the year for violation of law and ordinances embracing 848 buildings. There were likewise 348 condemnations of dangerous buildings, one, a row of buildings at Sixteenth and Ritner streets was condemned, the walls being dangerous. These buildings were taken down. It was with great regret that action had to be taken to compel the demolition of these buildings, but that portion of the public seeking to purchase small homes and live independently would have alone been the sufferers had not this method been adopted by the Bureau to protect them.

Some of the walls of the Haseltine building, which is on Chestnut street, between Broad and Fifteenth streets, after its destruction by fire were found to be dangerous and were taken down after an appeal had been taken from the decision of the Bureau.

I desire again to call your attention to the inadequate force of Elevator Inspectors, as required by the ordinance of April 10, 1894. As yet no action has been taken by Councils seeking to make it possible to carry out the provisions of this ordinance. To do so properly at least twenty inspectors will be needed for the work. This estimate does not include a Chief Inspector, who should be a scientifically trained engineer, nor his deputy, nor the clerical force necessary to carry on the increased office work, and I urge that a recommendation of this character be sent to Councils.

The most important and pressing need coming within the operation of the Bureau of Building Inspection is an Act of the Legislature providing for an intelligent and scientific limit upon the height of buildings. It is recommended by the Chief of the Bureau that a regulation that would limit the height of buildings in proportion to the width of the street would best serve the objects to be obtained, and his recommendation is that the height of a building be limited so that its front elevation shall not exceed one and one-half times the width of the widest street upon which it is built, and that all buildings over seventy feet in height shall be absolutely fire-proof. This would protect both the occupants of such buildings and surrounding buildings in case of fire.

Bureau of Boiler Inspection.

Total number of boilers inspected and approved by this Bureau during the year 1896 was 3201, in addition to which there were 131 locomotives inspected, which had been manufactured for use by the Governments of Russia and Japan, by the Baldwin Locomotive Works. This showed an increase of 87 inspections over the previous year. The expenses of this Bureau are met by its receipts. No explosion occurred during the year. The work of inspecting boilers seems to be about evenly divided between the City Department of Boiler Inspection and the Casualty Accident Companies.

Bureau of City Property.

This Bureau has charge and care of all City property, devoted to the use of this Department, with Public Squares, the leasing of wharf landings and market houses, the collections of vendor's licenses, ground rents, etc. A new pavilion at the Municipal Hospital has been erected and a bath house in the Nineteenth Ward, one in Germantown. Fire houses at Sixth and Sansom streets and one on Belmont avenue, and a police and patrol station in the Twenty-sixth District, comprehending the Thirty-first Ward, were likewise built. Ground has been purchased for different Bureaus and will hereafter be put in use by them. Curbing and paving has been done in Belmont Park, Dickinson Square, Wharton Square, and Allegheny Square. Restoration has been largely accomplished at Bartrams Garden and retaining walls placed in Norris Square. Alterations and repairs to numerous buildings have been made.

A City Forester was appointed in the late spring. Under his direction 740 trees, 220 hedge plants, and 64.375 bulbs have been planted in the different public squares. This cannot but make these squares more attractive. Many trees have been planted with a view that when old or damaged ones are taken up, young and vigorous trees will have already taken their place.

The Municipal Band which played in the various squares of the City from the 1st of July until the 15th of September, gave universal satisfaction ; its performances have been listened to, as estimated by the Bureau of Police, by about 600,000 people, in sixty-six concerts. The Band for the coming year will be under the general direction of this Bureau. The appropriation having been larger the band will be enlarged and the number of concerts likewise increased.

This Bureau has charge of the restoration in progress at Independence Square. The temporary structures connecting the old line of row offices with the main building on Sixth street and the main building on Fifth street have been removed and the walls partially restored to their original condition.

All pictures and paintings in Independence Hall have been fully renovated and cleaned and are now in excellent order.

The Daughters of the American Revolution are most generously and patriotically expending a large sum of money for the restoration of the Old Council Chambers in Independence Hall building. It is hoped that this work will be completed in February, 1897. A formal announcement of its restoration will then be made by the Daughters of the American Revolution.

In this restoration historians of acknowledged information have at each step confirmed the plans adopted and together with skilled mechanics have succeeded in rendering the work free from errors. The architect employed in this work has been Mr. T. Mellon Rogers, who has confirmed each step made in the progress of the work by historic research. In strengthening the structural part of this building, this Bureau called in the services of the Chief of the Bureau of Building Inspection, Mr. William C. Haddock and Mr. Howard S. Richards, an eminent architect and engineer of this City.

The contractors for this work were Messrs. Stacey Reeves and Company, and the Superintendent and mechanic who displayed in all matters the greatest interest and intelligence was Mr. Charles B. Henks.

All this work has been under the intelligent supervision of Mr. A. S. Eisenhower, Chief of the Bureau of City Property.

Bureau of Health.

The report of this Bureau is necessarily voluminous. It is a great pleasure that I am able to state that the public health during the year 1896 was good. No epidemics visited this City and no unusual variations in death occurred except from sunstroke. Deaths from this cause were excessive in all the large Cities throughout New England, the Middle and the Western States. There were more deaths from pneumonia during the past year than from any other disease. There was also a noted increase in the number of cases of measles and consumption. The decrease in the number of deaths from diphtheria has been marked, 862 deaths occurring, which is 158 less than the number reported in 1895. There were 61 deaths from Scarlet fever, which indicates but a slight prevalence of this disease, and a smaller number of deaths has not been recorded in forty years. There were 402 recorded cases of fatal typhoid fever. This shows a decrease of 67 over the previous year. No deaths occurred from small-pox during the year nor has there been a case of this disease since the latter part of December, 1895. The deaths from whooping cough numbered 158, in which there is also shown a decrease of 93 over the number reported in 1895.

The total number of births reported during the year was 30,961,being an increase of 1,143. The number of persons applying for marriage license during the year was 13,186. The deaths recorded for the year number 23,962.

Under the law passed in 1895, which provided for the licensing of lodging-houses, 250 properties have been examined, containing 1875 rooms and 5,619 beds. Rules and regulations established by the Bureau of Health, requiring air-space have been measurably carried out. Most of these houses when first visited for inspection were found to have violated the most common rules of hygiene. It is with pleasure that I am able to report that some of the lodging-houses are models of cleanliness and good management. Many licenses have been refused, and none are granted until favorable reports from the Bureau of Police and Bureau of Fire Escapes, supplemented by an inspection by the Bureau of Health, have been received.

The annual house to house inspection began early in the spring and has been most beneficial in the preservation of health in this City. There were visited and examined 29,042 premises ; upon 54,075 nuisances were found. These nuisances were of every description and were either abated upon demand by the Bureau or by the Bureau under its regulations.

The report of the operations of the House Drainage Division of the Bureau of Health shows 2,242 less plans submitted during the year 1896 than in 1895. The number of new plans submitted and approved was 6,648 and of old buildings 9,078, making a total of 15,726. The total number of inspection visits of new and old buildings during the year was 51,698. No change in the law affecting its administration should be made.

The House Drainage Division is concerned in detecting all kinds of impurities in the Schuylkill river, from Fairmount to the County line, which work it carries on uninterruptedly.

While the Bureau of Health has no authority to act in the adjoining counties in this respect, it nevertheless makes the inspections of the tributaries of the Schuylkill river beyond the limits of the City. Whenever it has been found that drainage is being discharged into the tributaries on account of the absence of proper outlets for sewage, steps are taken for the purpose of connecting with the City's intercepting sewer. Some of these branch sewers are still in the process of construction and others are projected and when completed will materially lessen the amount of pollution that now finds its way into the Schuylkill river.

The Division of Milk Inspection made 32,577 inspections which comprehended 404,970 quarts of milk. There were 12,947 quarts of milk condemned for adulteration with water, 2,414 quarts for being skimmed and 49 quarts for the addition of coloring matter. The work of this division not only includes the inspection of milk but also the periodical examination of stables where cattle are lodged.

The Medical Inspector reports the following cases of infectious diseases: Diphtheria, 3,191; Membraneous croup, 404; Scarlet fever, 1,052; Typhoid fever, 2,490. All contagious diseases when reported by telophone, telegraph or in writing are promptly referred to the Assistant Inspectors and reports are made for such action as deemed best. Disinfection was performed in 5,407 cases. On account of the great increase in the use of the disinfecting plant at the Municipal Hospital, by far in excess of other years, the work of disinfecting the material taken from private houses has at times been considerably delayed. There is no want of capacity in the disinfecting apparatus, but in the insufficient number of horses and wagons to drive into the different parts of the City and clean up the work of each day. An increase in appropriation for this apparatus will be of great service to the City.

The Bacteriological Division has been under the charge of Dr. B. Meade Bolton. He resigned his position in September. It is hoped that we will be able to secure an able head for this Bureau who will command the confidence of the medical profession. The preparation and the supervision of anti-toxin has been continued throughout the year.

The work of this Bureau has been most beneficial to this community and cannot help but grow broader in its scope and usefulness.

The Legislature passed an act providing for the compulsory vaccination of school children. This law has been very unpopular, but the efforts made to maintain and enforce it have no doubt largely contributed toward preventing small-pox in the City.

The inspection of public schools has been conducted by the Medical Inspector and his assistants. Defects of construction and drainage have been reported from time to time and recommendations been sent to the Board of Public Education. All school buildings should be put in good sanitary condition. It is believed the Board of Health is doing what it can in the matter but is only hindered by the lack of appropriation.

The protection of the children, permit me to suggest, requires co-operation between the Board of Public Education and the Bureau of Fire Escapes. The latter has reported at different times to the Board of Public Education, school buildings requiring fire-escapes. But in some cases fire-escapes have not been erected.

The chemical laboratory has far exceeded its work of former years, not only in scope, but in the subjects to which it has given its attention. It has analyzed from time to time the City's water supply. After analysis, a number of pumps-wells have been condemned, filled up and abandoned. It is hoped that during the coming year the Bacteriological Division and chemical laboratory will be working with greater value to the City. In analyzing frequently the water supply of the same the force of the chemical laboratory should be increased.

The Bacteriological laboratory has continued to work throughout the year on the lines laid down upon its organization. No less than 5,981 microscopic examinations of suspected exudate have been made and reported upon and a record kept thereof.

It is a matter of great concern that the admissions to the Municipal Hospital for 1896 were greater than during the year 1895. This in spite of the fact that no small-pox existed in the City during that period. Diphtheria and Scarlet fever form the bulk of diseases treated at the hospital. The accommodations at present are in every sense inadequate. Ample apporpriation should be made to thoroughly equip the hospital, which is necessary to the proper care of the poor.

Electrical Bureau.

This is a Bureau which in its work never sleeps. Each hour of the twenty-four and each day of the year find it in active operation. Its scope and object is to bring into perfect communication all the different parts of the City with the Bureaus of Police and Fire upon the shortest possible notice, thus aiding in the extinguishment of conflagrations and the prevention of disorder. It likewise has a general supervision of the electric lighting of the City, and all plans of electrical work, whether telegraph, telephone, electric light or trolley system are submitted to it for approval.

The operations of this Bureau establish conclusively that there is no part of electrical work now done but what might be not only successfully but better done by an underground system. The present underground system for Police and Fire service completely covers the centre of the City. There are 885 fire alarm boxes which of course is totally inadequate considering the area of the City and the great diversity of interest involved. These should be materially increased. In the City of New York there are over 2,500 such boxes. The same may be stated in regard to the Police Alarm System. Ample provision should be made for the speedy construction of underground conduits enabling both the systems to be entirely free from interference by storms, atmospheric conditions, or intentional interference by persons.

From a very careful investigation of the report of the Chief of the Bureau a greater advantage would accrue to the City if a method were devised and adopted by which all underground work of the various telegraph, telephone, electric light and other companies was put under the direction and control of this Bureau. Instead of having as many conduits as there are companies, sometimes two or three occupying the sub-service of a street, involving the unnecessary tearing up of the highway, all should be constructed and maintained under the control of the City in a general conduit, and space leased as it should be required. I believe this would be less expensive to the companies; a source of legimate revenue to the City.

The cost of electric lights is steadily decreasing. The average price per lamp per night for 1895 was 41.15 cents; for 1896, 35.5 cents; for 1897 will be 33.3 cents.

A Committee of three provided by resolution of Councils to inquire into the subject of an electric light plant for the City enables your Honor to appoint one expert, Councils the second, these gentlemen to name a third. The result of this has not been satisfactory, for nothing whatever has been reported by this Committee.

In the matter of the location of electric lights after carefully considering the question, I am of the opinion that it should be solely under the direction of the Department of Public Safety, for it must necessarily take into consideration the various and important interests which justify the erection of electric lights in different sections of the City. The character and density of the population, the width of the streets and the amount of travel must be considered by it without regard to any special locality.

The report of the Chief of the Bureau will well repay a careful perusal and shows the high state of efficiency it has reached. It has international reputation and is sought frequently for advice by cities throughout the entire country. It has done a great deal of work for the Department of Public Works, having had charge of the construction of all the electrical work done along the line of Pennsylvania avenue in conjunction with the building of the subway which is in course of construction.

I desire to call to your attention the absolute necessity of enlarging the quarters of the Electrical Bureau. At the present time the employees are greatly crowded and the work is constantly increasing.

RECOMMENDATIONS.

Permit me to offer for your consideration the following recommendations growing out of a careful study of the objects and scope comprehended by the Department of Public Safety.

1. An increase in the police force of the City, as suggested in the body of my report, and I suggest that at the earliest time possible that the Park Guards be brought under the direction and control of the Department of Public Safety as provided for by law.
2. An increase in the fire force as essential to the proper protection of property in different sections of the City.
3. The construction of mains, as indicated above, on Chestnut, Market, and Arch streets, from the Delaware and Schuylkill rivers to Broad street, with a pumping station on each river.
4. The thorough and complete electric lighting of the City from a police standpoint.
5. The construction of main conduits by the City for use by all companies using electricity in any of its varied forms.
6. For the purpose of the preservation of the health

and acquiring a knowledge of the cost of cleaning the highways, that a part of the City, viz: Between Vine street and South street, and the Delaware river and Schuylkill river be taken into the control of the City, for a period of one year, and that the City clean the streets by day labor during that time. A record could then be made of the number of loads of dirt removed each day, the quantity of dirt, from where taken, and the cost of removal.

7. That the contracts for cleaning the streets should embrace the removal of snow from the intersections of all streets and for a distance of twenty feet north and south, east and west of the same, within the crowded business sections of the City.

8. That the contracts for the cleaning of streets should comprehend all private streets and alleys that are in measure highways.

9. The appointment of a Committee to consider the older part of the City for the purpose of ascertaining those streets which are not public highways and having them, under the recent Act of Assembly, placed upon the City plan as such so that they may be properly supplied with water, sewers, and light.

10. That wherever it should be deemed advisable the width of these streets should be increased upon the City plan, so that alterations made in the future will gradually develop wider streets where narrow thoroughfares exist, without any material cost to the City.

11. I respectfully make the following suggestion regarding the thoroughfares in the immediate vicinity of the City Hall.

That West Penn Square be cut through of its present width north to Arch street and south to Chestnut street and that Juniper street be widened on the east line forty feet from Arch to Chestnut street. That Silver street, between Juniper and Thirteenth street be widened on the south line forty feet.

By making these changes upon the City plan at this time the cost of bringing them about would be fixed at the minimum figure, as no expensive buildings are now erected on the line indicated, nor could they be with a prospect of recovering damages for them after the lines are so fixed.

12. That the Legislature be petitioned to pass a law limiting the height of buildings as above indicated in the body of my report.

13. That the present law be so changed as to provide for the concentration of the existing powers vested in the Board of Health in an Executive Head, who shall be known as the Chief of the Bureau of Health.

In conclusion, I desire to inform you of the deep sense of obligation I am under to the Chiefs of the various Bureaus of the Department of Public Safety, and all their subordinates, and in regard to the gentlemen connected with my immediate office, to assure you of their unflagging zeal, in the complicated and often delicate work entrusted to them.

To them and to all the members of the Department of Public safety I desire to express my personal appreciation and gratitude. I remain, with respect,

Yours truly,

FRANK M. RITER,
Director.

ANNUAL REPORT

OF THE

Electrical Bureau

FOR THE YEAR 1896.

ANNUAL REPORT

OF THE

ELECTRICAL BUREAU

For the Year 1896.

Philadelphia, February 2, 1897.

Frank M. Riter, Esq.,
Director, Dept. of Public Safety.

Dear Sir :—Embraced within the report herewith submitted will be found the operations of the Electrical Bureau for the year 1896; the forty-first year as an office of the municipality, and my thirteenth as its Chief.

Embodied within this report I have offered such suggestions, recommendations or comments as may be pertinent to the subjects touched upon, together with such tables as may be valuable as future references.

The subjects requiring the greatest attention and to which the most pointed references have been made are those embracing a more liberal provision for the extension of the Police and Fire Alarm and the Fire Signal systems, both by the addition of numerous boxes and the extension of our underground cables; the betterment of the police patrol service, the extended advancement of our underground cable service, and the further additions to the electric lighting of the highways of the City.

These are all subjects, when properly fulfilled, that partake of being among the absolute necessities for the protection of the lives and property of the citizens in a large city, being conductive to their sense of security and comfort. A fire taken in its incipiency can be mastered with little trouble, but, when a handicap is introduced, by insufficient communication between it and the service (the Bureau of Fire), provided for its mastery, often obtains a headway that jeopardizes the lives of our citizens, and destroys much valuable property, whereas were fire signal boxes conveniently placed for instantaneous communication, many of the horrors incidental to a conflagration, resulting from delay, can be avoided.

The Police Patrol and Signal System has obtained a foothold in every district in the City, by its means, and since its institution the value of the services of the Guardians of the Peace have been greatly enhanced; each officer, while on his beat, is in communication with his station, and stands in a position of readiness to receive or send such messages as may be necessary for the furtherance of his official duties. To bring the service to a stage of absolute electrical perfection, it will be necessary to obtain a more liberal allowance for its further extension and improvement.

There cannot be too much stress laid on the question of the extension of our underground cable service. Should necessity arise from fires, riots or other causes, the safety of our citizens and their properties are dependent on the threads of wire suspended on poles in the air, where they are subject to all climatic conditions and interference; it appears to me that our Legislators, were they seriously thoughtful of the conditions as they exist, would provide more liberally for the placing of the City's fire, police and other wires underground.

The question of the proper lighting of the highways is largely in effect as a police regulation, and is one that interests us all. From the number of requests made each year for the introduction of light at necessary points, it would seem that the citizens at large would rather have light furnished them on the highways and dispense with some other apparent public necessity. When we consider the question seriously, there is no better aid to the Bureau of Police than the electric light, as crime and criminals flee from it and leave the honest man to rest in peace.

The system of conduits, as planned and laid by this Bureau, for the City, are amply sufficient for its present use, provision also having been made for ordinary future extension of our various services, and with ducts to spare that may be rented to those private corporations desirous of availing themselves of the opportunity for depressing their wires, but whose service does not admit of the outlay necessary for the laying of conduit for themselves.

The rental of the spare ducts in the City's conduits returns to the City Treasury a snug percentage on the original investment, and will in the course of time, pay for their placement, thereafter remaining the source of perpetual revenue. The sub-surface of the streets in the center of the City are rapidly being filled with the conduits of corporations who have been authorized by Councils to occupy them. This brings to my mind, that several years ago, I made an estimate for the building of a substructure for the City with capacity sufficient for all of the then present and future electrical needs of the City and private corporations, but on the score of economy the matter was pigeon-holed, and has not since been revived. Had the subject been seriously considered at that time, by the making of an appropriation and continuing the same from year to year, the streets to-day would not have been filled with the substructures of private companies, while the City would have a source from which a perpetual revenue was being derived. I merely mention this in justification of my efforts at that time to obtain an appropriation for the purpose, feeling well assured that if the matter were promptly met, the City would be greatly benefited both in economy of street room, as well as in a financial sense ; as the matter now stands, the private companies are occupying the streets throughout our City, by conduits laid by themeslves, from which the City derives no revenue whatever, in fact, the income of the City is decreased. All overhead structures for electrical purposes are subject to a license fee, but when placed underground, except where ducts or conduits are leased from the City, the revenue from this source ceases, the City being clearly, financially at least, the loser. The companies do, of course, lay a duct or tube for the City's use, but I question whether that is a sufficient return for the valuable franchises granted them. Heretofore they have been permitted under ordinance to erect poles upon which they pay a license fee to the City, and at the same time the City has the authority to use the poles for municipal purposes; while under ordinances granting them underground privileges, they are required to furnish the City with facilities for the running of its wires, they do not further pay the City for the privileges of occupying the streets. As previously mentioned, the Bureau has a considerable amount of conduit laid, as well as the authority to enter the conduits of others, for municipal purposes, which practically means, there have been facilities provided to place the most of our present services underground, within certain limits of the City, but, owing to the meagre appropriation made us for the purchase and laying of cables, we have been unable to take advantage of them, accordingly a large amount of the conduit provision made for us remains unoccupied. I would suggest that Councils be urged to make a more liberal allowance for this class of work, that we may place the circuits and wires of our police and fire systems underground, where they will be free from the interruption caused by storm, breaks, depreciation, crossing of other and foreign wires, and the dangerous and damaging possibility of contact with electric light, trolley or power wires. That is a question that cannot be too strongly urged, as delay caused by interference with our police, fire and other municipal circuits, from whatever cause, may mean the loss of life or limb, or the destruction of much property.

For several years, it has been our object, to depress all the City wires between Callowhill and South streets, and the two rivers; plans have long been formulated and advantage taken of every dollar given us, but owing to the smallness of our yearly appropriations, we have been enabled to accomplish but a small part each year. But at last we have many of the cables laid in the conduits within the above mentioned territory ready to splice and be placed in operation. To show that advantage has been taken of every opportunity offered us, we have placed entirely underground the Twentieth District Police Patrol Service, and the new Central Police circuit, both of which are included within this territory; these circuits are working perfectly, the telephonic feature of the patrol service showing up in the nature of an agreeable surprise, being absolutely without interruption of any kind. Special attention is directed to the crying need of an underground cable laid directly from this office to Frankford ; the conduit facilities are there, but the amount sufficient for the purchase of the cable is lacking. We have been enabled to lay cable part of the way to other suburban sections, such as Germantown, Manayunk and West Philadelphia, and now wish to obtain, if possible, sufficient means to purchase cable to Frankford; this is a very important matter and should receive earnest consideration, as the long leads of overhead wires between City Hall and Frankford are continually subject to interruption, endangering the many important interests represented in that section of the City.

The Police Telegraph maintains its record for promptness and dispatch. A reference to the tables covering its operations for the year will show the extent to which the municipal authorities have patronized the circuits comprising this system. To keep pace with our efforts surrounding all our service with every protecting device, we have prepared a circuit entirely underground, covering the City from Callowhill to South street, and between the two rivers, embracing eight police stations ; the circuit thus placed cen be depended on in any emergency, safe in its underground position it can neither be tampered with, nor will it be subject to interference from the elements. I can but express a desire that funds sufficient were provided to place all our services in like position.

The Police Signal and Telephone System, on account of the usage to which it is placed, requires constant attention, the wear and tear on its machinery being enormous. A number of the old boxes placed in circuit in 1884, being of a light material, the pattern then in vogue, have given out, many of the parts requiring to be replaced ; this patching process has been followed to such an extent, that at the present time, although kept in use, they are almost done for, and require to be replaced with the newer, stronger and better built instruments of a later pattern. The necessity for these old instruments being retired has become so great, that at this time, I would suggest that Councils be urged to provide us with an appropriation to cover their being replaced by the new pattern. I feel under the circumstances that a thing worth doing is worth doing well ; we cannot get the service from the old pattern box that we can from the new, and therefore present this suggestion to better a failing condition and make it "do well." The service has been increased during the year by twenty-five stations, one (1) of which, at the usual yearly rental, was placed in a private institution, desiring the benefit of the service. The Twentieth District Patrol service is the first to obtain the advantage of our underground system of cables, each of their ten stations being placed on neat appearing iron posts, placed on the street corner, and the works connected with wires leading into cables laid in the subways; the calling or signal circuit is what is termed a round circuit, while the telephone circuit is run in twisted pairs, each telephone being bridged off thec ircuit at a manhole nearest the box, and passing through a condenser practically giving each box, when in circuit, an individual circuit to itself, and at the same time no one instrument can cut another out and prevent those operating it from talking to the station, this circuit is remarkably quiet. The introduction of this patrol circuit underground marks the beginning of the movement toward a decided improvement in the care, maintenance and reliability of the Police Patrol service. The improvement instituted in the Fire Signal and Telephone system was carried forward this year, in so far as the appropriations available would permit ; two additional bridged systems have been run to the outlying districts, covering a number of companies, greatly to their betterment. It is our intention, as available monies will admit, to extend this system, until it meets all the Engine and Truck Companies in this City—many of them who are working under the old order of things badly needing it.

The Fire Alarm System is the object of an untiring supervision, every effort being made to prevent interference, interruption, delay or failure; the circuits are tested every half hour, and the slightest defect or indication of trouble instantly remedied, its record for the past year for efficiency cannot be surpassed.

The importance of the extended improvement and extension of our Fire Signal System does not seem to be fully appreciated by our municipal legislators, unless, as has been the case, where the necessity for a close and convenient location of a fire signal station has been directly brought to their notice, when in case of fire, they have had to travel long distances to operate the service, with a view of bringing the apparatus of the Bureau of Fire to the endangered locality.

There is no service under our care that should receive a more liberal appropriation each year than the Fire Signal System. Should a fire break out, the necessity for immediate action is recognized by all, and the first thought is the alarm box, but if the distance between boxes is great, as is the case in some parts of this City, much valuable time is wasted in reaching it and sending in the alarm. When you recognize that this City with 129 square miles is equipped with but 885 fire boxes, 56 of which being indoors and paid for by private individuals, and New York with but 31 square miles has about 2,500, and Chicago between 2,500 and 3,000, you can readily see the disparity. To thoroughly equip our City, we should have at least 2,500 signal stations; as a beginning I would suggest an appropriation for the purchase and erection of 300 or more boxes, and a liberal allowance each year for additional boxes and their placement, as municipal improvements require it. Again as in former reports, I would direct your attention to the horrible possibilities incidental to the breaking out of a fire in any of the numerous homes, hospitals and schools, etc., with which our City is so liberally endowed, but, which are absolutely without the means of direct communication with their only salvation in such an event, the Bureaus of Fire and Police. When it is considered that the blind, the maimed, the sick, the aged, the weak and helpless are left entirely unguarded in this direction, it appears strange to me that our fair City proverbially noted for its generosity in providing the means for the sustenance of all charitable institutions, should stop at the expense of furnishing them facilities for a speedy communication with headquarters in case of danger from fire. Many thousands of dollars have been appropriated for other purposes, not so necessarily needed, but the few thousand dollars asked for, for the placing of fire signal boxes for the protection of the lives and properties of all, has been made the object of the pruning knife and the amount asked for cut in two. It is practically impossible with our small number of boxes, considering the immense territory covered by the City, to place them within anything like reasonable distance one to the other, and the time wasted in reaching a fire alarm box in case of necessity, might place the little ones or the sick and aged and infirm in an appalling position, whereas were the institutions equipped with the instruments, the danger of delay in reaching the Fire Department, will be practically removed.

Twice each year a general and systematic tour of inspection of our fire boxes are made, all possibilities of defects removed, and the instruments placed in first class order; also during the entire year the linemen and inspectors in their goings to and fro pull in the boxes, as they pass them, thus keeping up a continual system of test, the possibility of failure of a fire box to come in is thus reduced to a minimum; there are, of course, possibilities of the overhead wires getting into troble, but even in that event, our circuits are so arranged, by leads into police and other stations, that the major portion of the circuits are always in circuit, and by this method the endangered portion, located between stations, is readily restored to its normal condition. The fire box keys of the entire Police Department were inspected and, where required, renewed. The keyless doors placed on a number of signal boxes in the heart of the City and in large manufacturing districts are, like all machinery dependent on springs for motive power, liable to disarrangement on exposure to the weather. To prevent the possibility of a failure to open the box, when necessary, a strict watch is kept on them; an inspector is detailed once each month to make an examination, clean out and keep them in order; owing to the strict scrutiny given them, no failure to operate a fire box through inability to open the door has been noted.

During an investigation into the workings of the fire alarm system in a sister city, it was shown that, inside of a year, there were 101 boxes pulled for fire, which through faults in the boxes or in the system, failed to respond and record at the Central office; a further inspection of the system showed where there were three times as many more, that had they been pulled would not have responded. If the statement is correct, it was truly a sad condition of affairs. During the investigation mentioned, a doubt was expressed as to the truth of the statement made by this Bureau, that no box pulled for fire in this City had failed to respond through any fault of its mechanism, machinery or system. Why there should be a doubt in the matter I cannot comprehend, our method and system of constant supervision and inspection and the twice yearly general inspection prove a check on the possibility of such failures. The last general inspection found but two boxes that had they been pulled would have failed to respond. They were at the extreme limits of separate circuits in the suburban section of the City, and were no doubt the effects of a stroke of lightning, as in both instances, one of the small contact springs was fused, but nothing was found indicative of a general faulty condition, as was found in the investigation of the system heretofore mentioned. There have been times, when the overhead wires had been broken down or disarranged from storms or other foreign causes, that boxes have been pulled for fire and failed to respond, but these are circumstances over which we have no control, and can only be remedied by placing all our wires underground, where they would be free from such interruption, a condition to which we have long looked forward, but, owing to a scant provision by Councils for the work, we have been unable to do but comparatively little in furtherance of this end.

The general telephone system under the care of this Bureau has been extended and enlarged until it appears to have the appearance of a business in itself. Taking advantage of what improvements are being made, we have changed a number of telephones in the main office of each Department and Bureau, from the old style of instrument to the improved Long Distance sett. Many lines, where there are several instruments on them have been bridged, greatly to their improvement. Continued additions to our switchboard makes the number of these connected to it 270, in addition to which there are twenty trunks to the general exchange, over which all the outside telephone business of these offices is performed. The constantly increasing business of the switchboard necessitated additional help—Councils were appealed to and two additonal operators allowed, the service rendered by the additional men being the means of greatly expediting the City telephone business. With regard to the purchase of telephone instruments for such of the City service to which they may be applicable, I still find the patent situation in a state of uncertainty; instruments of various styles and designs have been offered us for trial, but in no instance have we received the assurance that protection would be offered us in case we should use them, should infringement proceedings be instituted, and again unless we found them built on exactly the same line as the patented article, they proved of no use, not being anywhere near to their standard. When we replace one thing for another in this Bureau, it is with the intention of bettering its conditions, and not depreciating it. Taking these facts into consideration, none of the offers were considered to the extent that purchases were made, although bids were asked for furnishing telephones for 1897, that the subject could again be taken up, in case the Courts should decide them open to the public.

The fact that all permits issued to the railway companies for trolley construction must pass through this Bureau, frequently brings their officers in contact with those of this Bureau. At such times questions are frequently discussed relating to the method and manner of their construction, with relation to the safety of the public, and to their, and the City's mutual benefit. During these conversations, I have always found the companies' representatives courteous in the extreme, ready and willing to make any changes, suggested by the representatives of the City, productive of the public good. A number of the suggested changes were made at a considerable expense.

It having been found that a number of the City cables had been attacked and the lead sheathing damaged by currents escaping from the trolley system, in various parts of the City, and with a view of determining the responsibility of the railway company in the matter of damage to the City's substructures, I addressed you a communication relative to the matter, suggesting the opinion of the City Solicitor be obtained. In answer thereto, the Solicitor gave it as his opinion that the railway companies were liable for any damage sustained to the City's substructures by reason of an escape of current from the operations of the trolley systems. A copy of this communication was sent to the President of the various street railway companies. Following this communication and in keeping with their pronounced intention to do whatsoever might be necessary, to make their plants operative with the least damage to the property of others, they at once placed a corps of men at work, examining and making secure all track bonding, the laying of larger returns, the bonding together of all returns between the various stations, and permitting the placing of bond wires between their returns and the lead sheathing of the cables belonging to the City and other corporations.

Previous to the consolidation of the Philadelphia, Peoples and Electric Traction Street Railway Companies, each company, when two or more lines of cars ran on the same track, had its individual trolley wire. In some instances, there being six wires on one street, in addition to guy, anchor guard and other wires, an unsightly condition, and on account of the multiplicity of wires and their weight decidedly dangerous. Since the consolidation this accumulation has been dispensed with, one wire now serving for all, except on such streets as are jointly occupied by the Union Traction Company and the Hestonville & Mantua. A resolution of Councils referring to the removal of certain trolley poles at two points, on Chestnut street where the tracks were laid close to the curb, was referred to the Department of Public Safety for its action; all but four of these poles were abandoned, and they only remain, as it was found impossible to make arrangements with the property owners to have the span wires fastened to their buildings. Some decided steps should be taken to remove these poles before the summer cars are put to use, as it is the people riding on the side steps of these cars, who are endangered by possible contact with them. New, heavier and higher poles have been erected at all steam railroad crossings, giving the trolley wires a greater clearance over them. On account of the building of the subway on Pennsylvania avenue, much of the trolley work on the north side of Callowhill street has been temporarily removed, recourse being had until the completion of the subway to horse power for tramway purposes along that thoroughfare. The position of many of the trolley poles on the north and south bound streets, crossing the proposed subway, have been changed to suit existing conditions. Much annoyance has been caused to drivers of teams on the Fortieth and Forty-first street bridges, crossing the Pennsylvania Railroad in West Philadelphia, and on the South street bridge crossing the Schuylkill, by their horses being electrically shocked by contact with imperfectly bonded rails. To overcome this a properly bonded nine-inch rail has been laid, on the Fortieth and Forty-first street bridges, and on the western approach to the South street bridge,—a recurrence of such accidents being obviated at these points, yet the principal point of trouble on the South street bridge still remains, it being necessary for repairs to be made to the structure of the bridge before new rail can be laid. This is a matter that should be urged to completion, as it is an extremely dangerous place, and a point from which we may look for serious accidents and possibly loss of life. Further on in this report will be found a list of where a number of new routes or extensions to old were started during the year.

The lack of appropriations for additional electric lights for 1896 prohibited the erection of any new lamps, although the demands through the year for locating them were repeated and incessant.

The average price per lamp per night for 1895 was 41.15 cents; for 1896, 35.05 cents, and the proposals for 1897 show 33.3 cents, a reduction of $42,862.25, a sum sufficient to supply a large number of lights during 1897, without the necessity of an additional appropriation over the amount allowed for 1896.

In a city as large as Philadelphia, many lamps are required to properly light the highways at present opened for travel, and where new streets are opened, among the first improvements sought for is the electric lamp, that light may be provided for our citizens in going to and fro. While the number (6,228) now provided for by appropriation seems to be large, yet when we come to consider the great number of streets yet to be lighted, it becomes insignificant. I am now, and always have been, a firm advocate of the use of the electric lamp for the lighting of the highways, and think the money appropriated for the purpose well spent, although I have always differed with the companies with reference to the amount charged for the light. I had always contended the service could be supplied at a lower rate, a conclusion to which they have arrived as shown by the yearly reduction in their proposals. The price named for 1897 (33.3 cents) begins to have a more reasonable aspect.

The Committee of Three provided for by appropriation, to inquire into the subject of an electric lighting plant for the City, has not yet gotten together for the purpose. The ordinance required the Mayor to appoint one expert, the Councils the second and the two thus named to agree upon the third. The Mayor soon after the passage of the ordinance, appointed Mr. M. R. Muckle as his member of the Committee, Councils afterwards named Mr. Harry C. Francis, who declined to serve; they later named Mr. Joseph J. DeKinder, who accepted, but was unable to meet Mr. Muckle, whom I understand is absent from the City. There the matter rests.

A number of the electric lighting companies who obtained their privileges during late years, are required by ordinance to provide the City with certain free arc lights, and to furnish free the current, etc., for the incandescent lighting of station and engine houses belonging to the City, while those companies who obtained privileges equally as valuable in earlier years are not required to furnish anything free. I feel this to be an injustice. As all have practically the same privileges granted them, each and all should be served alike, and a general ordinance passed regulating the matter so that all companies holding privileges be included in its requirements.

As mentioned in my report for 1895, "a number of business establishments having private installations of electric lighting, were using their surplus energy in supplying others, in some instances several squares away. The wires erected for this purpose are illegal, having no authority from Councils—no permit has been issued them from this Bureau, accordingly in avoiding the police, the wires cannot have been erected with any degree of security, and are therefore dangerous. Plans showing the locations of these plants and the places they supply have been furnished the Solicitor by the Department for his action." As stated in a former report, "The maintenance of these wires for which no authority has been obtained, is unjust to those companies who, working under an ordinance of Councils, are required to pay certain license charges, as well as take out permits and submit to a general supervision of their construction and maintenance by the Department.

Some steps looking to a speedy settlement of the matter should be taken, in justice to these companies and as a protection to their, and the City's, interest.

For several years I have been making mention in my annual reports of the accumulated and accumulating mass of overhead wires, both on poles and house tops, and the dangers attending them, from contact, one with the other and with high tension wires. The matter has been most seriously brought to our attention this year by the death of two persons who came in contact with wires that were in connection with high tension wires. A decided stand taken by Councils requiring all wires to be placed beneath the surface of the street, naming a reasonable time for their depression would cover the conditions and eventually bring freedom from such accidents. It is a practical impossibility for us to keep watch on all the mass of overhead wires, now running over, across and through our streets, with their multitude of connections, crossings and recrossings. Wherever in their goings about, our linemen, inspectors and other attaches of the office, note conditions not in accord with our system of construction, they relieve the condition temporarily and report the same to the officers of this Bureau, who notify the party or parties to whom the wires belong, to make their service safe, and if not immmediately looked after, decisive action is taken by this Bureau and the source of danger removed.

Conduits (*City*).

This Bureau has laid 221,830 feet of conduit as follows: 2,983 feet of 6 ducts, Williamsport tube, with 8 manholes, from southwest corner Sixth and Spring Garden streets, to south side of Green street, thence to Front street. This conduit connects with the City's at Sixth and Spring Garden streets and Second and Green streets, and with the American Telephone & Telegraph Company's at Fourth and Front and Green streets; 6,470 feet on east side of Second street, Market to Federal street, 12 duct Valentine Subway, with 22 manholes, connecting at Second and Chestnut streets and Spruce street, with Brush conduit; at Second and Chestnut streets with the Penn and Edison; at Second and South streets with the Bell Telephone; at Second and South and Second and Washington avenue, with the American Telephone & Telegraph Company; at Second and Christian and Federal streets with City conduits.

5,699 feet of 9 duct, Williamsport conduit, on the south side of Columbia avenue, between Broad and Fourth streets, thence to north line to Second street, with 25 manholes, connecting at Broad and Columbia avenue and Second and Columbia avenue with City conduits, and at Tenth and Columbia avenue and Second and Columbia avenue with the American Telephone & Telegraph Company's conduit, and at Germantown and Columbia avenues with the Bell conduits.

3,409 feet, 12 duct, Valentine conduit, on the west side of Second street, Diamond street to Lehigh avenue, with 12 manholes, connecting at York street with Bell conduits, and at Lehigh avenue with City conduits.

1,508 feet, 6 duct, Williamsport tubing, on the east side of Twenty-third street, Spring Garden street to Fairmount avenue, with 6 manholes, connecting with City conduits at Spring Garden, Mt. Vernon streets and Fairmount avenue.

490 feet, 6 duct, Williamsport tube, on the south footwalk of Germantown avenue, between Twenty-sixth and Twenty-seventh streets, and 2,678 feet of 6 duct, Williamsport tube, on the west side of Twenty-seventh street, Germantown avenue to Columbia avenue, with 11 manholes, connecting at Twenty-seventh and Columbia avenue, and

Twenty-sixth and Germantown avenue, with City conduits, and at Twenty-sixth and Germantown avenue with the West End Company.

2,783 feet, 6 duct, Valentine Subway, on the east side of Twenty-third street, South street to Federal street, with 10 manholes, connecting at South street and Washington avenue with American Telephone & Telegraph Company's conduits, and at Christian and Federal streets with City conduit.

4,118 feet, 4 duct, Williamsport conduit, on south side of Wallace street, Broad to Twenty-third street, with 11 manholes, connecting at Broad and at Twenty-third streets with City, and at Twenty-third street with American Telephone & Telegraph Company's conduits.

475 feet, 4 ducts, Valentine conduit, on south side of Spruce street, Second to Front streets, connecting the American Telephone & Telegraph Company and the Girard Estate conduits at Front street with the Brush conduit at Second street.

126 feet, 2 duct, Williamsport tube, from Fourth and Branch streets into Truck "B," Branch street, east of Fourth street.

186 feet, 2 duct, Williamsport tube, from Leed's avenue and Vine street, into Engine 17, Leed's avenue below Vine street.

168 feet, 2 duct, Williamsport tube, from Fourth and Union streets into Third District, Union street east of Fourth street.

194 feet, 4 duct, Williamsport tube, on Girard avenue, Frankford avenue to Shackamaxon street, connecting the Northern and Kensington conduits for City use.

With a view of perfecting our underground system of cables, connections by means of additional manholes have been made between the City's and the various private companies' conduits, in which we have privileges at the following locations :

Fourth and Arch streets, Brush and Long Distance.

Front of Insurance Patrol, Arch street west of Fifth, (Brush).

Front of Truck " B," Fourth and Branch streets.

Front of Fourth District, Fifth street above Race street.

Front and Chestnut streets, City with Long Distance.

Third and Walnut streets, with Long Distance and Bell.

Front of Engine 22, Evelina street east of Third street.

Seventeenth and Chestnut streets, Bell and Brush.

Seventeenth street, below Chestnut street, front of Engine 4.

Juniper and Chestnut streets.

Front of Engine 17, Leed's avenue below Vine street.

Twentieth and Spruce streets, Edison and Brush.

Fourth and Union streets and in front of Third District Station House, connecting with Long Distance.

The following table will show the cost per foot per duct of the conduits laid during 1896, including manholes and the restoration of streets completed and ready for the cables :

	Cost per Duct.	
	Per Foot.	Per Mile.
Twenty-third street, South to Federal, 6 ducts	15.22	$803.62
Twenty-third street, Spring Garden to Fairmount avenue, 6 ducts	16.57	874.90
Wallace street, Broad to Twenty-third streets, 4 ducts	21.48	1,134.14
Girard avenue, Twenty-sixth to Twenty-seventh, and Twenty-seventh street from Girard avenue to Columbia avenue, 6 ducts	15.69	828.43
Second street, Market to Federal, 12 ducts	11.27	595.06
Second street, Diamond to Lehigh avenue, 12 ducts	10.92	576.58
Sixth street, Spring Garden to Green, from Sixth to Front streets, 6 ducts	15.08	796.22
Columbia avenue, Broad to Second streets, 9 ducts	15.20	802.56
Spruce street, Second to Front streets, 4 ducts	18.83	

Rental of Ducts in City Conduits.

Through the facilities offered by the rental of ducts in the conduits of the City, the Western Union Telegraph Company and Postal Telegraph Cable Company have been enabled to place the great bulk of their service below the surface of the streets and removed many of their poles and overhead wires in addition to those mentioned in my report for 1895, the City Solicitor has in preparation a lease for the renting of ducts on Market and Second streets to the Reading Railroad Company.

The following table will show the list of those leasing from the City and the route used by them :

	Miles.	Feet.	Amount
Pennsylvania Railroad Co.:			
One duct on Market street, from Delaware avenue via Juniper, Filbert and Merrick streets to Fifteenth street; on Walnut street from Front to No. 8 Walnut; and on Front, from Market to Dock streets (Girard Estate leased to the City)	1	4,400	
And one duct on Fifth street, from north side Market street to Minor and the Bourse (330 feet in all)	1	4,740	$550 00
The Bell Telephone Co. of Philadelphia :			
One duct on Broad street, from Filbert to Germantown avenue, a distance of	3	4,667	950 00
One duct on Ridge avenue, from Vine street to Columbia avenue, a distance of	1	4,971	950 00
Postal Telegraph Cable Company :			
One duct on Second street, from Market to Diamond streets (11,862 feet); one duct on Market street, from Second street to Tenth street (3,733 feet); three ducts on Tenth street, Marble alley and Cameronian court (2,145 feet); two ducts on Third street, from Market to south of Chestnut (1,272 feet), and two ducts on Fifth street, from Market to the Bourse (564 feet)	3	3,736	950 00
One duct on north side of Market street, from No. 9 Market street via Juniper, Filbert and Merrick streets to Powelton avenue, a distance of	3	3,768	950 00

Western Union Telegraph Company :

	Miles.	Feet.	Amount.
Four ducts on Market street, from Water street to the east end of the bridge (2 miles, 1,478 feet each); one duct from the east end of the bridge to Thirtieth street (1,151 feet); one duct on Market street, from Thirtieth to Thirty-second streets (1,414 feet); one duct on Walnut street, from Front street to Delaware River (280 feet); one duct on Fifth street, from Market street to the Bourse (282 feet); two ducts on Third street, from Market to south of Chestnut street (636 feet each)................................	9	5,061	$3,000 00

Pennsylvania Railroad Co.:

	Miles.	Feet.	Amount.
Single conductor on Thirteenth street, from Market to Chestnut streets; Chestnut, Thirteenth to Broad, and on Ninth street, Market to Chestnut, or 1,410 feet of 20 conductor cable on Thirteenth street, and 855 feet of 25 conductor cable on Ninth street.........	9	......	90 00

The Philadelphia Standard Telephone and Telegraph Company have laid 6,892 feet of wood tubes on the following streets :

West side of Tenth street, Cuthbert to Filbert streets.
West side of Tenth street, Filbert to Market streets.
East side of Eleventh street, Cuthbert to Filbert streets.
East side of Eleventh street, Filbert to Market streets.
Cuthbert street, east from Eleventh street.
North side of Market street, Eleventh to Twelfth streets.
North side of Market street, Twelfth to Thirteenth streets.
North side of Market street, Thirteenth to Juniper streets.
East side of Juniper street, Market to S. Penn square.
South side of S. Penn square, Juniper to Broad streets.
South side of S. Penn square, Broad to Merrick streets.
West side of Merrick street, S. Penn square to Market street.
North side of Market street, Merrick to Fifteenth streets.
North side of Market street, Tenth to Ninth streets.
North side of Market street, Ninth to Eighth streets.
North side of Market street, Eighth to Seventh streets.
North side of Market street, Seventh to Sixth streets.
North side of Market street, Sixth to Fifth streets.
North side of Market street, Fifth to Fourth streets.
North side of Market street, Fourth to Hudson streets.
North side of Market street, Hudson to Third streets.

The Pennsylvania Heat, Light and Power Company have laid 732 feet of creosoted wood tubes between the power-house at Barker street, west of Twentieth street to Eighteenth street. They have also built a brick and iron subway on the north side of Sansom street, between Ninth and Tenth streets, 396 feet in length, internal dimensions 4 x 8 feet, to carry their steam pipes, cables, etc.; 386 feet 6 inches of 14 inch iron steam pipe has been placed in the Sansom street subway and 742 feet 2¼ inches of 14-inch steam pipe laid on Barker street, from the power-station, between Nineteenth and Twentieth streets to Eighteenth street.

The Brush Electric Light Company have laid a total of 57,340 feet of underground conduit.

The Columbia Electric Light Company have added 4,785 feet of conduit to their system during 1896, making a total of 14,658 feet owned by them.

The following list will show the streets on which they placed their conduits during 1896 :

West side Sixteenth street, from south side Oxford to south side Master street.

East side Fifteenth street, from south side Columbia avenue to North side Master street.

West side Fifteenth street, from south side Oxford to south side Master streets.

West side Broad street, north side Master street to south side of Girard avenue.

In addition to their system of tubes, the Edison Electric Light Company have a total of 45,325 feet of conduit laid, of which 14,595 feet was laid during 1896, as follows:

South side of A n street, from east side Eighteenth to west side Nineteenth streets.

South side of S. Rittenhouse street, from west side Nineteenth to west side W. Rittenhouse streets.

South side of Market street, from east side Nineteenth street to west side Nineteenth street.

South side of Market street, from east side Eighteenth to east side Nineteenth streets,

North side Market street, from east side Tenth street to east side of Twelfth street.

North side Market street, from west side Eighth street to east side Tenth street.

North side of Arch street, from west side Seventeenth to east side Nineteenth streets.

South side Race street, from east side Seventh street to east side Eighth street.

South side Race street, from east side Front street to east side Second street.

South side Race street, from west side Delaware avenue to east side Front street.

South side Vine street, from west side Delaware avenue to east side Front street.

West side Delaware avenue, from north side Arch street to south side Vine street.

East side Front street, from north side Arch street to south side Vine street.

East side Seventh street, from north side Arch street to south side Race street.

East side Eighth street, from south side Walnut to north side Locust streets.

East side of Eighth street. from north side Locust to south side Locust street.

East side of Eighth street, from south side Locust to north side Spruce streets.

East side of Eighth street, from north side Spruce to south side Spruce street.

East side of Tenth street, from south side Walnut to north side Pine street.

East side of Eighteenth street, from south side Walnut to south side Spruce streets.

East side Nineteenth street, from south side Market to north side Arch streets.

West side of Nineteenth street, from south side Ann to south side S. Rittenhouse streets.

The Electric Traction Company have added 2,200 feet of conduit to their system during 1896, as follows :

On Beach street, from Brown to Peoples' Power House.

On South street, from Twenty-third to Twenty-seventh streets.

On Sunderland avenue, from South street to Power House.

On Sunderland avenue, from Bainbridge street to Power House.

On Twenty-third street, from Spruce to Chestnut streets.

The Penn Electric Light Company have laid 3,974½ feet of conduit during the year as follows :

Chestnut street, Fifteenth to Twenty-second streets.

The Philadelphia Traction Company have abandoned about 5,000 feet of 4 duct conduit on Broad street, between Juniata avenue and Ruscomb street, and presented the same to the City.

The Peoples Traction Company have laid 18,267 feet of conduit during 1896, as follows :

Germantown avenue, Bethlehem Pike to Hillcrest avenue.
Hillcrest avenue, from Germantown avenue to County Line.

a total of 166,571 feet owned by them.

The Bell Telephone Company of Philadelphia have laid 101,936 feet of conduit during 1896, making a total of 296,163 feet owned by them. The following table will show the streets upon which their conduits were placed during 1896 :

New street, from N. Second to N. Third streets.
Elfreth street, from M. H. east of N. Second street to Water street.
Callowhill street, from N. Third street to Dillwyn street.
Dillwyn street, from Callowhill street to M. H. north.
S. Fifth street, from South street S. M. H. to Wilder street.
German street, from S. Fifth street to M. H. east.
Redwood street, from S. Fifth street to M. H. east.
S. Ninth street, from South street to Scott street.
Catharine street, from S. Ninth street to Fallon street.
Fallon street, from Catharine to M. H. south.
Auburn street, from S. Ninth street to M. H. west.
Ellsworth street, from S. Ninth street to Sidney street.
Sidney street, from Ellsworth street to M. H. south.
Scott street, from S. Ninth street to M. H. west.
N. Eleventh street, from Vine street to Ridge avenue.
Wood street, from N. Eleventh street to M. H. west.
Hamilton street, from N. Eleventh street to Ridge avenue.
N. Seventeenth street, from Market to York streets.
Buttonwood street, from N. Seventeenth street to M. H. east.
North street, from N. Seventeenth street to M. H. west.
Thompson street, from N. Seventeenth street to Carlisle street.
Montgomery avenue, from Willington street to Sydenham street.

Edgeley street, from N. Seventeenth street to M. H. east.
York street, from N. Seventeenth street to N. Twenty-first street.
S. Twenty-first street, from Naudain to Ellsworth streets.
Kimball street, from S. Twenty-first street to M. H. east.
N. Twenty-third street, from Vine street to Biddle street.
Wood street, from N. Twenty-third street to M. H. west.
Biddle street, from N. Twenty-third street to west of Twenty-fourth street.
Barnwell street, from Naudain street to South street.
Market street, from Preston street to Cobb's Creek.
Ellsworth street, from S. Twenty-first street to Gray's Ferry road.
S. Twenty-fourth street, from Ellsworth to Alter streets.
Alter street, from S. Twenty-fourth street to M. H. east.
S. Twenty-sixth street, from Ellsworth to Deshong streets.
Deshong street, from S. Twenty-sixth street to M. H. west.
Gray's Ferry road, from Peltz street to S. Twenty-eighth street.
Gray's Ferry road, from S. Twenty-eighth street to Bridge (Schuylkill).
Peltz street, from Gray's Ferry road to M. H. west.
Gillingham street, from Germantown avenue to Cadwallader street.
Noble street, from St. John to Garden streets.
Dillwyn street, from Noble street to M. H. north.
Magnolia street, from Noble street to M. H. north.
Garden street, from Noble street to M. H. north.
Brown street, from St. John street to Darien street.
Charlotte street, from Brown street to M. H. north.
Lawrence street, from Brown street to M. H. north.
Brown street, from Palm to Broad streets.
Broad street, from Brown (N.) street to Brown (S.) street.
Brown street, from Broad street to Ridge avenue.
Palm street, from Brown street to M. H. south.
Duane street, from Brown street to M. H. north.
Poplar street, from N. Seventeenth street to Ridge avenue.
Poplar street, from Ridge avenue to N. Twentieth street.
Poplar street, from N. Twentieth street to N. Twenty-ninth street.
Corinthian avenue, from Poplar to Ogden streets.
Ogden street, from Corinthian avenue to M. H. east.
Ringgold street, from Poplar street to M. H. south.
N. Twenty-seventh street, from Poplar to Harper streets.
Harper street, from N. Twenty-seventh street to M. H. west.
N. Twenty-ninth street, from Poplar to Ogden streets.
Ogden street, from N. Twenty-ninth to M. H. west.
Wylie street, from Ridge avenue to N. Nineteenth street.
N. Nineteenth street, from Wylie to Brown streets.
Brown street, from N. Nineteenth to West streets.
West street, from Brown street to Fairmount avenue.
Fairmount avenue, from West street to N. Twentieth street.

N. Twentieth street, from Fairmount avenue to Brandywine street.
Brandywine street, from N. Twentieth street to M. H. east.
Ridge avenue, from N. Eleventh street to N. Twenty-seventh street.
Irvine street, from Ridge avenue to M. H. east of Thirteenth street.
Wallace street, from Ridge avenue to Andress street.
Andress street, from Wallace street to M. H. north.
Parrish street, from Ridge avenue to Carlisle street.
Carlisle street, from Parrish street ts M. H. north.
Chauncey street, from Ridge avenue to M. H. north.
N. Twenty-first street, from Ridge avenue to Turner street.
Turner street, trom Ridge avenue to M. H. east.
Bolton street, from Ridge avenue to M. H. west of Twenty-second street.
N. Twenty-third street, from Ridge avenue to Montgomery avenue.
Montgomery avenue, from N. Twenty-third street to Croskey street.
Croskey street, from Montgomery avenue to M. H. south.
N. Twenty-fourth street, from Ridge avenue to Grant avenue.
Grant avenue, from N. Twenty-fourth street to M. H. west.
Berks street, from Ridge avenue to M. H. west.
Front street, from Norris strcet to Lehigh avenue.
Norris street, from N. Front to Hope streets.
Hope street, from Norris street to M. H. north.
Berks street, from Germantown avenue to N. Tenth street.
Dauphin street, from Front street to Waterloo street.
Waterloo street, from Dauphin street to M. H. north.
Bodine street, from Dauphin street to M. H. north.
Phillip street, from Dauphin street to M. H. south.
Lehigh avenue, from Fillmore street to N. Third street.
Fillmore street, from Lehigh avenue to M. H. north.
N. Third street, from Lehigh avenue to M. H. north.
N. Third street, from north side Lehigh avenue to M. H. south of Lehigh avenue.

Conduits (Total Returns.)

The returns made to this Bureau by the various companies authorized by Councils to maintain underground electrical structures, together with those laid by the City, shows there have been placed underground, 2,347,995 feet of conduit, an increase of 142,790 feet over 1895; representing an aggregate of 17,648,001 feet of duct, an increase of 2,310,132 feet; of which the City owns 221,830 feet of conduit, an increase of 31,287 feet or 1,544,486 feet of duct, an increase of 252,599 feet.

Cables (City).

8,052 feet No. 4 B. & S. gauge, lead incased, braided and painted electric light cable has been laid as follows :

1,485 feet on the west side of Second street, between Thompson and Diamond streets, with twenty-two 30 feet iron posts, were used to complete this service. No current has passed through this cable as yet.

6,567 feet on south side of Wallace street, between Broad and Twenty-third streets, with eighteen 30 feet iron poles, eight 15 feet mast-arms and nine 12 feet arms; this cable was connected with the Fairmount avenue electric light cable on May 18th, and the lamps at Fifteenth, Sixteenth and Seventeenth and Wallace streets, connected. Lack of appropriation did not permit of placing any new lamps in position, but it is presumed the matter will be attended to when the new appropriation becomes available.

Twenty-two 30 feet iron poles were placed on the west side of Second street, between Diamond and Thompson streets, with six 15 feet mast-arms and ten 12 feet mast-arms, during 1896.

Thirty-feet iron electric lamp posts and mast-arms were erected in place of wood poles, as follows :

Sydenham above Master with 15 feet arm ; Thirty-fourth and Ludlow streets with 18 feet arm; Susquehanna avenue, between Memphis and Cedar streets, with 15 feet arm; Forty-ninth and Woodland avenue with 15 feet arm; Frankford and Montgomery avenues with 12 feet arms; Fourth and Huntingdon streets with 15 feet arm; Green and Goodman streets with 15 feet arm; Thirteenth and Lambert streets with 15 feet arm; Forty-second and Parrish streets with 15 feet arm; Park avenue and York street with 15 feet arm; Sepviva and York streets with 15 feet arm; 1226 Moyamensing avenue with 15 feet arm; Tulip and York strets with 18 feet arm; Fifth and Berks streets with 15 feet arm; Fourth and Tasker streets with 15 feet arm; Sixth and Sansom streets with 12 feet arm.

Thirty feet iron poles without arms, have been erected at 1622 Edgley street and Twenty-seventh and Columbia avenue.

Cables.

Telegraph and telephone cables have been laid as follows:

6,298 feet, 50 conductors, all No. 18 B. & S. gauge, in City conduits on Broad street, Lehigh avenue to Germantown avenue.

4,460 feet, 50 conductors, No. 18 B. & S. gauge, on Broad street, Fairmount avenue to Columbia avenue, in American Telephone & Telegraph Co.'s conduits.

4,290 feet, 32 conductors, composed of 20 No. 16 and 10 No. 18 B. & S. gauge, with 8 junction boxes, on Callowhill street, Broad to Twenty-third street, in American Telephone & Telegraph Company's conduit.

7,367 feet, 42 conductors, composed of 24 No. 16 and 8 No. 18, with 20 junction boxes on Girard avenue, Front street to Frankford avenue, in Northern Electric Light and Power Co.'s conduit.

6,619 feet, 42 conductors, 24 No. 16 and 8 No. 18, with 13 junction boxes on Fairmount avenue, Front to Broad street, in American Telephone & Telegraph Co.'s conduit.

5,802 feet, 42 conductors, 24 No. 16 and 18 No. 18 B. & S. gauge, with 12 junction boxes on north side of Fairmount avenue, west of Broad street, to Twenty-sixth street, in American Telephone & Telegraph Co.'s conduit.

10,429 feet, 42 conductors, 20 No. 16 and 22 No. 18 B. & S. gauge, on Spruce street, Twenty-third to Front street, in City conduit, Front to Second street; in Brush conduit, Second to Twentieth street; in Edison conduit (laid for City), Twentieth to Twenty-third street (this cable has just been laid and not yet connected).

9,895 feet, 42 conductors, 20 No. 16 and 22 No. 18 N. & S. gauge, on Chestnut street, Front to Twentieth street, and on Twentieth street, Chestnut to Walnut street, in Brush conduit.

This cable has just been laid and not yet connected.

4,600 feet, 42 conductors, 20 No. 16 and 22 No. 18 B. & S. gauge, with 10 junction boxes, on south side of Arch street, between Broad and Twenty-third streets, in City conduit.

6,404 feet, 42 conductor, 20 No. 16 and 22 No. 18 B. & S. gauge, with 15 junction boxes on south side of Arch street, Broad to Front streets, in Brush conduit.

1,539 feet, 42 conductors, 24 No. 16 and 18 No. 18, with 4 junction boxes, on the north side of Market street, Fourth to Front street, in City conduit.

5,471 feet, 52 conductors, 30 No. 16 and 22 No. 18 B. & S. gauge, with 12 junction boxes, on south side of Market street, between City Hall and Fourth street, in City conduits.

5,616 feet, 52 conductors, 30 No. 16 and 22 No. 18, with 13 junction boxes, on the north side of Market street, City Hall to Twenty-third street, in City conduit.

9,147 feet, 42 conductors, 24 No. 16 and 18 No. 18, with 18 junction boxes, on the south side of Market street, between Twenty-third and Powelton avenue, in City conduit.

In connecting up the Twentieth District Patrol 269 feet of 4 conductor cable was laid, between Broad and Cuthbert streets and Merrick and Filbert streets.

Cable used in connecting up the Station, Engine and Truck Houses :

Eleventh and Race street to Sixth District in City Conduit, 8 No. 16, 4 prs. No. 18 B. & S.	457 feet
Fifth and Race street to Fourth District, Bell conduit, 8 No. 16, 4 prs.. No. 18	325 feet

Fourth and Union street to Third District, City conduit, 8 No. 16, 4 prs. No. 18	210 feet
Seventeenth and Chestnut streets to Engine 4, Edison and Brush Conduits, 8 No. 16, 4 prs. No. 18	255 feet
Third and Walnut streets to Third and Evelina streets and Engine No. 22, Bell conduits and American T. & T. Co.'s M. H., 8 No. 16 and 4 prs. No. 18	732 feet
Fourth and Branch streets to Truck B, City conduits and American T. & T. Co's 8 No. 16, 4 prs. No. 18	240 feet
From Broad and Vine streets to Leeds avenue to Engine No. 17 in Brush conduits and City conduits, 30 conductors, 8 prs. No. 18, 14 No. 16, with 2 junction boxes	675 feet
To Engine No. 32, Sixth and Sansom streets, Bell conduit, 8 single No. 16, 4 pairs No. 18	1000 feet

This cable is tested out and working :

Merrick street, into cellar of Broad street station 5 pairs, No. 18 telephone	250 feet
From Station house to Engine house at Chestnut Hill, 10 conductor cable	95 feet
From Long Distance Manhole to Truck A, 10 conductors	125 feet
From Long Distance Manhole, Eleventh and Walnut streets, to Bell Telephone Compaey of Philadelphia's conduits, Eleventh to Sansom to Lawson street, to Franklin Building, 5 prs. No. 18 B. & S. Gauge	950 feet

Considerable cable work was completed in the City Hall corridors and rooms, viz :

Courts of Common Pleas, A and B. Rooms 231, 233, 235.

Coroner's suite, Common Pleas Nos. 3 and 4, Mayor's new offices, Bureaus of Highways and Street Cleaning, City Solicitors, northeast corner third floor corridor and rooms 301, 303, 304, 305, 306, 308, 311, 395, 397, 399.

Additional cables have been laid from the operating room to the stairway to accommodate the incoming incumbents of the offices in City Hall. To facilitate trunking facilities and to allow for future extensions, the Bell Telephone Company of Philadelphia have laid a cable of large capacity between Juniper and Cuthbert, and the Electrical Bureau operating room.

City cables are bonded to trolley returns at the following locations :

Tenth and Market streets.
Seventeenth and Market streets.
Thirty-second and Market streets.
Twelfth and Market streets.
Eighteenth and Market streets.
Thirty-third and Market streets.
Twenty-third and South streets.
Broad and Wallace streets.
Broad and Callowhill streets.
Broad and Hamilton streets.
Broad and Spring Garden streets.
Broad and Barclay streets.
Broad and Fairmount avenue.
Broad and Ridge avenue.
Tenth and Ridge avenue.
Second and Callowhill streets.
Twenty-ninth and Ridge avenue.
Front and Fairmount avenue.
Front and Green streets.
Front and Callowhill streets.
Second and Brown streets.
Frankford road and Girard avenue.
Twenty-third and Callowhill street.
Twenty-third and Wood streets.
Twenty-third and Market streets.

Cable terminal poles were erected as follows :

Powelton avenue and Market street, continuation of Market street cable.

Twenty-third and Callowhill streets	60 feet, 16 conductors
Broad and York streets	300 feet, 10 conductors
Trenton avenue and Dauphin street (26th District)	90 feet, 16 conductors
Third District, Fourth and Union	81 feet, 16 conductors
Front and Lombard streets	46 feet, 16 conductors
Twenty-fifth street and Fairmount avenue	50 feet, 16 conductors
Forty-first street and Woodland avenue	53 feet, 4 conductors

Short lengths of cable were laid at street intersections for the purpose of connecting neighboring manholes, as follows :

30 feet, 10 conductors, No. 16 B. & S. Gauge, Sixth and Market streets.
30 feet, 10 conductors, No. 18 B. & S. Gause, Sixth and Market streets.
95 feet, 10 conductors, No. 16 B. & S. Gauge, Broad and Race streets.
95 feet, 10 conductors, No. 18 B. & S. Gauge, Broad and Race streets.
18 feet, 32 conductors, No. 18 B. & S. Gauge, Thirtieth and Market streets.
25 feet, 42 conductors, Nos. 16 and 18 B. & S. Gauge, Thirty-second and Lancaster avenue.
65 feet, 52 conductors, Nos. 16 and 18 B. & S. Gauge, Juniper and Filbert streets.
20 feet, 42 conductors, Nos. 16 and 18 B. & S. Gauge, Twenty-third and Market streets.
25 feet, 26 conductors, No. 16 B. & S. Gauge, Broad street and Fairmount avenue.
25 feet, 42 conductors, No. 16 B. & S. Nos. 16 and 18 B. & S. Gauge, Broad and Girard avenue.
170 feet, 3 conductors, No. 16 B. & S. Gauge, Fifteenth and Filbert streets, into store house.
25 feet, 3 conductors, No. 16 B. & S. Gauge, Broad and Locust streets.

At the request of the Department of Public Works, this Bureau has assumed the supervision of the electrical work made necessary by the building of the subway along Pennsylvania avenue, all expenses to be borne by the Bureau of Surveys. From the monies appropriated to the Bureau of Surveys for subway purposes, a temporary cable has been ordered, covering the telegraph and telephone service of the Reading Railroad Company, and will, when received, be placed underground along Ridge avenue, from Willow street to Spring Garden street, to Twenty-third street, to Fairmount avenue, to Twenty-sixth street, to Girard avenue, to Thirty-first street.

Cables (Brush Company.)

The Brush Company has laid cables and erected seven 25 feet and fourteen 30 feet poles on the south side of Arch street, between Second and Juniper streets, for the public lighting of that thoroughfare, but five lights only are connected with the service at present. The poles are the property of the City, the cable of the Brush Electric Light Company. They have also laid cable and placed one 25 feet and sixteen 30 feet iron poles on the north side of Vine street, between Second and Tenth streets, for public lighting ; as in the former instance, the poles are the property of the City, the cable belonging to the Brush Company.

Police Telegraph.

Maintained at the highest degree of efficiency, the service performed by the Police Telegraph System of this City can scarcely be equalled by the system used for such purposes in other cities. 571,624 messages were received or transmitted over the circuits of this system, an increase of 22,911 over 1895. The natural increase of business over these circuits has been so great that to relieve the possibility of delay, in its transmission, it became necessary during the year to ask Councils for an appropriation for an additional operator. This was granted, greatly benefiting the service, when heretofore it became necessary for some to wait while others were being waited on, it is now of rare occurrence that any have to submit to delay in the transmission of police business. To further increase the efficiency of this service, the districts in the centre of the City, viz: Third, Fourth, Fifth, Sixth, Eighth, Ninth Sub, Nineteenth and Twentieth, have been placed on an underground circuit by themselves, where they will be free from interruption, whether by storm or otherwise.

The Telegraph Department of the Twenty-sixth District, while the new house was being built, was temporarily located over the cell-room ; on the completion of the new building, they were transferred to the comfortable quarters provided for them. The Twentieth District instruments were removed from their old quarters at Fifteenth and Filbert streets to the new house, Fifteenth below Vine street. A new dial and relay were placed in Olney, the Sub-Station of the Fourteenth District; heretofore all work had been done between them by telephone, and the records of such messages crudely kept. Now all messages become a matter of record. A new instrument and relay were placed in this office for the new underground Central Police wire, and one to serve as an extra instrument in case of a break down.

A more reliable method was introduced in striking alarms of fire on the police wires by running each circuit to the armature of a relay, insuring a break on each circuit, which, on account of earth currents, could not be obtained before by key.

The Police Signal and Telephone.

The value of this service as an auxiliary to the Bureau of Police is shown more each year, by the increased uses to which it has been put. By the introduction of improved instruments, the service with the exception of several districts equipped with old instruments, the service is greatly improved, the old instruments mentioned have about outlived their usefulness ; to better the conditions, it will be necessary to equip these stations with the improved pattern. Several more stations have been equipped with the three wire system mentioned in my report for last year. This system works well until a disarrangement of the alternating circuits used by the electric lighting companies, in their vicinity occurs, when the telephone service becomes erratic and unreliable, until the electric lighting service is restored to its normal condition. To overcome this, it has been determined to run a pair of wires in close proximity to one another over the entire district, and bridge in the telephone service in each box; this has been tried on the Twentieth District Patrol with much success, the system working entirely free of all induction. Additional stations have been placed as follows: First District, 1; Fourth District, 1; Seventh District, 1; Twelfth District, 1; Thirteenth District, 1; Fourteenth District, 1; Seventeenth District, 1; Twentieth District, 2; Twenty-first District, 1; Twenty-fourth District, 1; Twenty-sixth District, 2 ; Twenty-seventh District, 6 ; Twenty-eighth District, 2; Twenty-ninth District, 2; Thirtieth District, 2.

The Penny Savings Bank at Twenty-first and Bainbridge streets has been connected with the First District Patrol.

The instruments of the Twentieth and Twenty-sixth Districts were removed from the old to new quarters. On account of the introduction of the patrol system at the Twenty-seventh District (Tacony), the two full setts of telephones were taken out of Tacony and Bustleton, returned to the Bell Telephone Company of Philadelphia, and ½ setts obtained in their place, at the one-half price of the yearly rental.

To better the service of the Eighth District Patrol, the patrol-box at Eighth and Green streets was transferred to Garden and Willow streets.

The patrol box that had been located in the office of the Pennsylvania Railroad at Thirty-second and Market streets was destroyed during the fire, April 20, 1896.

The number of stations in each district, together with the private boxes in each, are given below :

Patrol.	Police District.	Private Boxes.	Total Boxes.
2	Second,	...	13
3	Third,	1	13
3	Fourth,	1	15
7	Seventh,	...	16
7	Eighth,	...	16
9	Ninth,	1	15
10	Tenth,	...	12
11	Eleventh,	...	14
12	Twelfth,	...	19
13	Thirteenth,	..	16
14	Fourteenth,	2	38
15	Fifteenth,	...	12
15	Twenty-seventh,	...	15
16	Sixteenth,	...	14
17	Seventeenth,	...	18
17	First,	1	13
18	Eighteenth,	...	24
18	Twenty-sixth,	...	15
19	Nineteenth,	1	11
19	Fifth,	3	14
20	Twentieth,	...	10
20	Sixth,	2	13
21	Twenty-first,	2	28
22	Twenty-second,	...	19
22	Twenty-eighth,	...	14
23	Twenty-third,	1	23
24	Twenty-fourth,	...	17
25	Twenty-fifth,	...	23
29	Twenty-ninth,	...	18
30	Thirtieth,	...	23
		15	512

Fire Signal and Telephone System.

By the introduction of a metallic circuit into which the telephone instruments of a number of Engine Companies are bridged and changing the " Blake " formerly in use for the " granular button " transmitter, this service has been greatly improved. This plan will be followed during the coming year, until all the Engine and Truck Companies in the Bureau of Fire will be equipped with a reliable system of telephonic communication between each other and their superior officers. The instruments at Engines Nos. 16, 17 and 32 were transferred from the old to their new houses, on their completion. The quarters of Asst. Engineer McGarrity, at Sixth and Sansom streets, was given a special connection, and the wire work at Engine 15, being found faulty, was renewed.

To better test the lines and batteries of this system, the battery leads were run to separate switches. Circuits Nos. 4 and 12 were changed from ground to metallic circuits, insuring better service.

The practice (for convenience) of working several fire telephone circuits off one battery, caused at times inconvenient and conflicting conditions, which were remedied at the switchboard in the office of the Bureau, by the introduction of duplicate apparatus and a series of plugs, enabling the operator to work on either side the circuits, where heretofore they had been unable to do so, and to disconnect from the common battery any circuit developing trouble of any nature. For greater convenience in testing, a rearrangement of these circuits was made, wherein they were included in a spring jack, permitting of their being tested as are the signal and alarm circuits.

Fire Alarm System.

Recognizing the importance of this system, as a safeguard to the lives and properties of our citizens, the circuits are tested every half hour, and the gong instruments in the engines have been repeatedly and carefully gone over and kept in repair. Few complaints of a failure to receive an alarm are entered and when received they are immediately looked after and remedied.

The residence of Asst. Engineer McGarrity having been vacated the gong instrument was taken out, while new insruments were placed in the residences of Acting Assistant Chief Dunlap and Assistant Engineer Waters. The instruments of Engines 16, 17 and 32 were moved to new quarters. No. 8 alarm circuit was connected into Holmesburg police station for test.

Fire Signal System.

As in the alarm system, the circuits of this system are carefully watched by the operators, tested every half hour, and the instruments on them frequently examined and tested. The instruments of this system were all included on 20 circuit, and as many of them were being overloaded, it was determined to increase this number to 30 circuits, dividing the number of boxes between them. Even this will hardly suffice, as it is our desire to have not more than 25 or 30 boxes on each circuit; in the near future it will be necessary to further increase our office capacity to 50. No. 15 signal had such a large number of boxes on it, it was divided into two circuits, the new being numbered 25. To facilitate testing and to increase their efficiency in case of breaks or other troubles, No. 10 signal was cut into Ninth District; No. 16 signal into Olney Sub-Station, and No. 20 signal into Holmesburg.

The Miller Lock Company, at Orthodox and Tacony streets, Frankford, and the Pennsylvania Railroad Company, in the placing of fire signal boxes, at their own expense, recognize the value of a speedy communication with the Bureau of Fire, should necessity require it.

During the Horse Show in June, Fire Signal Box No. 1384 was temporarily placed in the grounds at Wissahickon Heights.

Telephones.

The telephone service of the City is rapidly reaching the distinction of being one of the principal systems of the Bureau, each year adding its quota to the number and improvements. The following additions to, and changes in, were made during the year.

The Bureau of Street Cleaning; the new offices in City Hall, of Clerks Paist, Robinson and Kochersperger, and President Hartman, of Councils; residence of Chairman of Highway Committee; Draughtsman of Bureau of Gas ; Coroner's and Clerk's offices in City Hall; private office of Chief Webster, Bureau of Surveys; Mayor's new offices in City Hall; Electrical Bureau Storehouse, Fifteenth and Filbert streets; residence Director Riter; residence Chief of Building Inspection; five free libraries, southwest corner Seventeenth and Montgomery avenue, northwest corner Broad and Federal streets, 1219 Chestnut street, 22 South Fortieth street, and Frankford avenue, below Norris street; private office, Chief Haddock; private office, Mr. George, Bureau of Gas; Courts of Common Pleas Nos. 1, 2, 3, 4; private office of Receiver of Taxes; special office of Bureau of Surveys, No. 508 North Eighteenth street ; cement room, Bureau of Surveys, Room 516, City Hall; office of Clerk of Highway Committee of Councils; private office, Chief Bureau of Highways; Oil Inspector, Room 311, City Hall; private office of Controller Walton; residence of Chief Clerk of Select Council; private office of Health Officer; private office of Chief Clerk, Bureau of Health, were connected to the switchboard in the Electrical Bureau, City Hall. The offices of the District Attorney were connected together by eight telephones, constituting a speaking tube service, and the offices of the Board of Revision of Taxes by three setts, constituting a speaking tube service. The wires of the Bureau of Gas were bridged and placed in order by this Bureau, and an extension bell placed in the office of the Chief of the Bureau of Gas. As is the custom at the latter end of the year, the office of the City Ice Boats was connected. The wires and instruments of the Bureau of Surveys were considerably benefited by the introduction of the bridging system. The 'phone in the old residence of the Secretary to the Mayor was changed to his new residence on his removal. The telephone was removed from the old residence of the Port Physician to the new, on his removal. The 'phone of Magistrate Jermon placed in his office, 418 South Eleventh street. The instrument in Brigade Headquarters was moved from their old office to Room 542, City Hall. The telephone service in the City Solicitor's office was moved from the fourth floor to the fifth, while changes were being made in these offices. The telephone was moved from the old office of the Bureau of Water, 232 South Fourth street, to 1111 Walnut street.

To benefit the telephone service between the Seventeenth Police District and the Sub-Station, the circuit between them was made metallic. The quarters of the new Eleventh District Patrol stables was connected with the main station by a metallic circuit for telephone purposes. The office of the President of Select Council, in the Franklin Building, was connected by a pair of underground wires with the telephone switchboard in the Electrical Bureau for telephone purposes. The circuit for the Bureau of City Property, to Independence Hall, was made metallic. The boats, "Stuart, Stokley and Visitor," on the Delaware river have been connected together, and with this office by underground bridged wires, thus providing instantaneous communication between them and the Dement in case of necessity. The telephones at the Municipal Hospital, which have heretofore been mixed, were systematized and placed in good condition. The telephone wires in the Pennsylvania Hospital grounds were rearranged on account of rebuilding.

For testing purposes a knife blade switch was placed in the talking circuit to the Frankford Engines, at the Patrol House, Cambria and Stouton. During the year a test was made of a pair of Clamont telephones, but the effects derived from them were not of a nature to cause the Bureau to enter into any negotiations for their purchase or use. A test of the transmitter named the "Bright" was productive of more success, but as no guarantee of them from infringement could be secured, it was considered best not to negotiate for their use.

Recognizing the importance for immediate connections with the various street railway depots, in case of any dangerous condition that may exist on their systems, it was deemed expedient to have a direct connection by telephone with their offices, depots and car barns; after consultation with the officers of the company, they provided a pair of wires from their switchboard at Eighth and Dauphin streets to Fifteenth and Market streets, at which point we met them with a pair of wires leading to our switchboard.

Toward the latter end of the year, the Chief of the Bureau of Water communicated with this Bureau in relation to their telephone system, with which they had had much trouble. After consultation with them, it was determined to place the improvement of the system in the hands of this Bureau. Up to the present time, two circuits have been completed, one to Spring Garden Pumping Station, Spring Garden storehouse, residence of foreman of Fifth District, Fairmount Pumping Station, Belmont Pumping Station and Reserves. The other circuit takes in Queen Lane Reservoir and Pumping Station, Manayunk Station. The old and new reservoirs at Roxborough and Shawmont Pumping Station. These circuits are entirely free from induction and with the system of bridging used, and the granular button transmitters now give and should continue to give entire satisfaction. We will continue fitting them up, until the entire telephone system of the Bureau is in perfect working order.

The latest improved form of long distance telephone instruments have been placed in the main offices of each Municipal Department and Bureau in the City.

The introduction of the common battery system by the Local Telephone Company necessitated numerous changes on our telephone switchboard to secure harmonious action.

Leland batteries introduced in place of Callaud batteries in the switchboard transmitters, proved of considerable benefit to the service.

The rapid increase to the number of offices in City Hall necessitated additional trunk line facilities between the Bell Telephone Exchange and the City Hall; accordingly in June, requisition was made on the Bell Telephone Company of Philadelphia for circuits between the two offices sufficient to give us 30 trunks. Up to the present time, we have been provided with but four additional, making 20 in all; these are at times so crowded that it becomes necessary for some in the building to await connections. Twice since June have demands been made on them for the remaining trunks, but they excuse themselves by the plea that they do not have cable capacity sufficient to give us the necessary connections, but state they will give the matter early attention. It is an intention to push the matter to an early settlement.

The Ninth District Police Station and the Sub-Station of the Ninth District have been connected by a mile of "circular loom" cable, a present to the City for trial; it is very quiet, the service between these stations being greatly benefited thereby.

Trolley Construction.

The Union Traction Company have taken down 9.53 miles this year of unnecessary trolley wires, or a total of 10½ miles since the consolidation, December 1, 1895. The only place where more than one wire remains over a track is where the Union Traction Company and the Hestonville, Mantua and Fairmount Passenger Railway Company use the same track.

The Holmesburg, Tacony and Frankford Electric Railway Company have also taken down 3,800 feet of trolley wire on Frankford avenue, between Harrison and Bridge streets, in turn using the wires and power of the Union Traction Company.

A great source of possible danger has been removed by the removal of the trolley poles, except four, from the curb line of Chestnut street bridge and its approaches, and placing the same at a safe distance from the track, the outer rails of both tracks being but a few inches from the curb line. The four remaining on the curb line out of a total of twenty-four poles are on the eastern approach where it was impossible to make arrangements with the property owners, whereby the span wires could be fastened to their buildings, thereby removing all danger from this source.

Similar conditions existed on the south side of Walnut street, between Second and Third streets, the south rail being but a few inches from the curb. The Union Traction Company and the Hestonville, Mantua and Fairmount Passenger Railway Company removing their poles entirely from this side of the street, bracket arms being placed on the poles on the north side to support the wires, leaving the pavement on the south side of the street clear of obstructions, in so far as the trolley poles are concerned.

A total of 71 trolley poles have been abandoned and removed from the highways by the Union Traction Company; of this number 24 were erected by the Electric Traction Company for temporary use, on Clearfield and Westmoreland streets, between Fifth and Sixth streets, there not being any bridge on Sixth street crossing the Philadelphia and Reading Railroad at Allegheny avenue. The bridge being completed, the poles were removed as per agreement. Also, 11 on Cedar street, between Lehigh avenue and Somerset street, this section being abandoned on account of the Philadelphia and Reading Railroad bridge being too low to permit of the running of cars under it.

The Union Traction Company have renewed over 22½ miles of trolley wire, by taking down old wire which had become worn thin, and erecting new wire in its place, divided as follows :

Chestnut and Walnut streets, between Front and Twenty-second streets.
Front street, between Chestnut and Walnut streets.
Twenty-second street, between Chestnut and Walnut streets.
Thirteenth street, between Locust and Cumberland streets.
Fifteenth street, between Locust and Glenwood avenue.
Fourth street, between Walnut street and Fairmount avenue.
Eighth street, between Walnut street and Fairmount avenue.
Ridge avenue, between Tenth and York streets.
Market street, between Front and Ninth streets.
Market street, betweon Schuylkill River and Thirty-third street.
Glenwood avenue, between Broad and Fifteenth streets.
Broad street, between Glenwood avenue and Clearfield street.

and many other places, particularly at overhead crossings, where the blow from the trolley pole wheel flattens the wire; all of these weak spots having been renewed, in fact, in any case where a trolley wire developes a weak spot, it is immediately cut out and new wire substituted.

The Union Traction Company have also erected higher and heavier poles at all steam railroad crossings, with a view of giving the trolley wire a greater clearance above the tracks, the wires now clearing the tracks 23 feet, and in some cases, even more. To maintain this height it was necessary to erect 32 feet poles.

Located new trolley poles as follows :

Union Traction Company	256
Hestonville, Mantua & Fairmount Passenger Railway Company	1
Manayunk & Roxborough Incline Plane & Railway Company	4
Total of	261

The Union Traction Company has reset 468 poles, in a great many cases, it being necessary to substitute heavier ones, especially on the old Electric Traction Company's system, where the two-section six-inch pole proved to be not heavy enough to stand the strain of the span wires and weight of the trolley and guard wires, particularly so on streets where there are two tracks, requiring two wires, such as Berks streets, Kensington avenue and Frankford avenue, etc. In all cases where such changes were made, a three-section pole, 5, 6 and 7 inches in diameter, has been erected, thereby strengthening the lines, and the company being better able to keep the trolley wires up to the required height.

The Holmesburg, Tacony and Frankford Electric Railway Company have erected 7½ miles 0000 wire, in addition to what they previously had, for their return circuit, and connected the same at every fifth pole on the Bristol pike to the four rails and auxiliary wire; this has relieved the earth of considerable current in and around Holmesburg. Previous to connecting this wire with the Bristol pike track and their power-house, as much as 25 volts could be gotten out of the earth between Tacony and Holmesburg. Since the wire has been connected, not more than 4 or 5 volts can be found on same test.

Guard wires have been watched very closely on all lines and kept well insulated. New wires added when necessary, by changing the routes of the City's lines. Can safely say that all overhead construction is in strictly first class condition.

The Union Traction Company have erected new trolley wires and started to run cars on the following streets :

Twelfth and Sixteenth streets, Jackson to Porter streets, and Porter street from Twelfth to Sixteenth streets	March 10th
Seventeenth and Eighteenth streets, Tasker to Porter streets and Porter street from Seventeenth to Eighteenth streets	April 4th
Ellsworth street, from Passyunk avenue to Sixteenth street	May 6th
Christian street, from Ninth to Sixteenth streets	May 6th
E. Susquehanna avenue, from Memphis street to Delaware River, and E. Norris street from Memphis street to Thompson street	June 2d
Wayne street, from W. Washington to Johnson streets	June 14th
Somerset street, from Amber to Cedar streets	June 27th
Erie avenue, from York road to Broad street	August 22d
Germantown avenue, from Chestnut Hill to Hillcrest avenue	July 3d
Hillcrest avenue, from Germantown avenue to County Line	Oct. 11th
Fox Chase Branch (to Philadelphia, Newtown & N. Y. R. R.)	Feb. 21st
Sixth street, across bridge at Allegheny avenue	Feb. 15th
Fox Chase (from Philadelphia, Newton & N. Y. R. R. into Fox Chase)	Aug. 29th
Holmesburg, Tacony and Frankford Electric Railway Company, Bridge street from State road to Bristol Pike	Jan. 16th

To prevent accidents caused by horses stepping on rails that were improperly bonded, on the Fortieth and Forty-first street bridges and the western end of the South street bridge, a nine-inch rail, extra well bonded, has been laid; while this removes the source of trouble at these points, the danger still exists on the South street bridge proper, comment on which was made in the earlier pages of the report.

Electric Lighting.

At the close of the year 1896, there were 6,228 lamps (the same as 1895) maintained at public expense; no appropriations were made during 1896 to increase the number. Fifty by the Girard Estate, 80 are lighted free by the various electric light companies under ordinance, and 3 free on Girard avenue bridge, by the Peoples Traction Company, making a total of 6,361 lamps placed for the lighting of the highways of the City.

There are 661 lamps on the City underground circuits, 24 of which are furnished by Girard Estate, and 118 on cables laid by others, a total on underground cable of 779, an increase of 4 on City cables and 40 on cable owned by others. There were 9,144 lamps deducted from the bills of the various companies during the year for failing to comply with the provisions of their contract, at 35.08 cents, the average per lamp per night; $3,207.72 remained in the City Treasury from these deductions.

The lighting of Police and Fire Stations by incandescent lamps, by the various Electric Light Companies, under ordinance of Councils, has added materially to the work of the Bureau; a number of the companies are required to light the houses or stations, but are not required to wire nor furnish fixtures; in that event, it devolves on us to do the work. Under the appropriation available during the year, the following stations were equipped :

The new house of Engine No. 16, Forty-fourth street and Girard avenue,	85 lamps
Engine No. 14, Main and Sellers streets, Frankford....	40 lamps
Engine No. 7, Church st., east of Main st., Frankford..	40 lamps
Engine No. 32, Sixth and Sansom streets......	90 lamps, not yet lit
Engine No. 40, Sixty-fifth street and Woodland avenue..	39 lamps, not yet lit
Twenty-first District, sub-station, Sixty-fifth street and Woodland avenue..	52 lamps, not yet lit

and the Police Boat "Stokley" was wired for side, top and bow lights.

With a view of introducing a uniform system of sockets in all stations, that it would be necessary to carry but one style of lamp on hand, all stations having other than the Edison style of socket were dismantled, and the Edison socket introduced; this was followed only in such stations as were using sockets to fit lamps of which our stock was given out, as the other make of lamps give out the remaining stations will be equipped with the standard socket. At Germantown, all the Thomson-Houston sockets were taken out and the Edison socket substituted.

A pair of wires were run from the Edison mains in the cellar of the City Hall to our Battery Room on the ninth floor, eastern front, for the purpose of supplying our storage battery with constant current, which could not be obtained from the plant in the City Hall, as it is frequently shut down for various purposes.

The average current furnished during the year by the several companies was 9.3 Amps.

The following companies under their ordinance are furnishing free electric lights :

Diamond Electric Company	10
Manufacturers' Electric Company	10
Southern E. L. & P. Company	10
Suburban Electric Company	5
Kensington Electric Company	10
Powelton Electric Company	10
West End Electric Company	15
Northern E. L. & P. Company	10

a total of 80 lamps. Based on the average of 35.08 cents per light per night, which the City was paying for street electric lighting during 1896, we were receiving the equivalent of $10,271.42 in free lighting, in part return for the privileges granted them.

The Cheltenham Electric Light, Heat and Power Company are not yet supplying electric arc lights within the

City limits; when they commence to do so, they will be required to furnish the City five (5) free.

A number of electric lighting companies who are providing consumers with incandescent electric lights are required, by ordinance, to furnish current for lighting free, to all police and fire stations along their lines.

The following list will show the stations lighted, the number of lamps and by whom :

Station.	No. of Lamps.	By Whom.
Twenty-ninth District Police	82	Powelton Electric Company.
Twenty-ninth District Police	13	Powelton Electric Company.
Twenty-ninth District Stable	11	Powelton Electric Company.
Engine No. 41	43	Powelton Electric Company.
Twenty-first District Police	9	Powelton Electric Company.
Engine No. 16	85	Powelton Electric Company.
	243	
Fourteenth District Police	63	Germantown Electric Light Co.
Fourteenth District Patrol	12	Germantown Electric Light Co.
Fourteenth District Stable	14	Germantown Electric Light Co.
Engine No. 19	21	Germantown Electric Light Co.
	110	

(The Germantown Electric Light Company are not required by ordinance to light these stations, it being done by them voluntarily.)

Twenty-third District Police	43	Columbia Electric Light Co.
Engine No. 27	43	Columbia Electric Light Co.
	86	
Engine No. 29	151	Northern E. L. and P. Co.
Engine No. 21	50	Northern E. L. and P. Co.
Twelfth Distrsct Police	60	Northern E. L. and P. Co.
	261	
Engine No. 45	56	Southern E. L. and P. Co.
Eleventh District Police	63	Kensington Electric Company.
Engine No. 6	38	Kensington Electric Company.
	101	
Fox Chase Engine Company	38	Suburban Electric Company.
Engine No. 7	40	Suburban Electric Company.
Engine No. 14	40	Suburban Electric Company.
	118	

A grand total of 1,160 incandescent lamps furnished free for the lighting of Engine Houses, Police Stations and Patrol Stations, equivalent, calculating on a basis of ten incandescents to one arc, to 116 arc lamps. Using the average of 35.08 cents per light per night, the figures paid for arc lamps for street lighting during 1896, it would represent the sum of $14,893.56. Add this estimate to that made under the heading of "free arc lamps" ($10,271.42), it would give a total of $25,164.98 the City receives in free lighting for the privileges granted them.

Further than this, the City received from the Electric Light Companies, the sum of $22,655, as license charges on poles, wires, etc., totaling as folows :

80 free arc lights at $35.08 per light per night..........	$10,271 42
1,160 incandescent lamps, equivalent to 116 arc, at $35.08 per light per night..................................	14,893 56
License charges..	22,655 00
Total..	$47,819 98

returned to the City in the shape of free lighting, and monies actually paid into the Treasury.

The following houses were wired by the Electrical Bureau : Engines 7 and 14, in Frankford, and lit by the Suburban Electric Company. Engine No. 16, at Forty-fourth and Girard avenue, and lit by the Powelton Electric Company.

Engines Nos. 32 and 40, and the Sub-station of the Twenty-first District were wired by the Electrical Bureau, but have not yet been lighted. Engine 32, when lighted, will have to be paid for by the City, while Engine No. 40 and the Sub-Station of the Twenty-first District will be lighted by the Powelton Electric Company, as soon as their wires are completed to them.

The installation of Engine 34, by the Electrical Bureau, and the Eighteenth Police District, by the Manufacturers' Electric Company, are in the course of construction. Plans for the incandescent installation have been made by this Bureau for

Name of Station.	No. of Lamps.	To be Lighted and Wired by
Engine 2	61	Northern E. L. & P. Company.
Engine 15	34	Northern E. L. & P. Company.
Tenth District Police Station	70	Northern E. L. & P. Company.
Twelfth District Police Station	19	Northern E. L. & P. Company.
Seventh District Patrol House	11	Northern E. L. & P. Company.
Seventh District Police Station	93	Northern E. L. & P. Company.
Engine 28	51	Manufacturers' Electric Co.
Engine 30	43	Manufacturers' Electric Co.
Twenty-second Police District	67	Manufacturers' Electric Co.
Twenty-fourth Police District	65	Manufacturers' Electric Co.
Tenth District Patrol Station	26	Kensington Electric Company.

and the Fifteenth District Police Station and Patrol Stables to be wired by the Electrical Bureau and lit by the Suburban Electric Company.

The new search light with the moderated form of adjusting apparatus has been placed on board the Police and Fire tug "Stokley."

License Returns.

Thirty-three thousand one hundred and seventy-nine dollars were paid into the City Treasury by the Electric Lighting, Telegraph and Telephone Companies as license charges on wires, poles, attachments, etc., for the year 1896. (See table for amount paid by each.)

The following back license charges were paid into the City Treasury :

The Bankers' and Merchants' Telegraph Company paid into the City Treasury, through the office of the City Solicitor, the sum of $12,500; this amount is the balance of $15,278.34, realized by compromise upon license charges upon poles and wires due by them from 1885 to 1892, inclusive. Information has been received through the City Solicitor's office, that back license charges have been paid by the Philadelphia Local Telegraph Company, as follows :

For 1885.	Paid.	Amount.
Maintenance of poles	1, 23, '94	$531 00
Wire on poles and buildings	1, 23, '94	287 50
Wire on City poles	2, 28, '93	112 50
Wire interest	2, 20, '94	55 86
Wire interest	1, 23, '94	444 12
For 1886.		
Maintenance of Poles	1, 23, '94	529 00
Wire on poles and buildings	1, 23, '94	265 00
Wire on City poles	2, 28, '93	80 00
Interest	1, 23, '94	365 86
Interest	2, 20, '94	52 44
For 1887.		
Maintenance of poles	1, 23, '94	526 00
Wire on poles and buildings	1, 23, '94	137 50
Wire on poles and buildings	2, 19, '94	332 50
Interest	1, 23, '94	241 18
Interest	2, 19, '94	121 64
Interest	2, 20, '94	59 76
Total		$4,141 86

Moneys paid to Receiver of Taxes.

The total amount paid to the Receiver of Taxes, from all sources to the credit of this Bureau, was $42,458.18, viz :

License charges for 1896	$33,179 00
Police signal and telephone service	1,200 00
Rental of ducts in City conduits	6,950 00
Rental of wires in City cables	90 00
Sale of old material	1,039 18
Total	$42,458 18

Appropriations.

Of the $989,545.38 appropriated or transferred to the Bureau for the year 1896, $978,062.65 were expended, and $5,530.98 merged, and $5,951.75 were carried to the books of 1897. (See itemized account in table.)

Number of Poles, Mileage of Wire, etc.

According to the returns made by the Telegraph, Electric Light, Telephone and Street Railway Companies, there were on the highways of the City, exclusive of those along railroad tracks :

15,116	Wood poles............................	(Increase of 135 over 1895.)
27,712	Iron poles in use by Trolley Companies.	
6,432	City poles, wood........................	(Increase of 99 over 1895.)
1,816	City poles, iron........................	(Increase of 52 over 1895.)
24	Girard Estate (iron).	
51,100	Total.	

2,702.28	Miles	teleg'ph and telep'ne wire	(Increase of 26.53 miles over 1895.)
1,348 89	"	electric light wire..........	(Increase of 23.92 miles over 1895.)
1,440.57	"	City wire......................	(Increase of 25.23 miles over 1895.)
644.38	"	trolley wire....................	(Increase of 74.26 miles over 1895.)
6,136.12	"	Total............................	(Incr'se of 149.94 miles over 1895.)

There are 14,620 attachments to City poles, being a decrease of 605 to support 421.74 miles of wire.

Poles and Wires Taken Down.

This Bureau has removed 96 poles and taken down 67.34 miles of overhead wire.

The Postal Telegraph Cable Company has taken down 261 poles and 148 miles of wire on Wood street, Third to Twenty-third street, thence to Callowhill street, to the Schuylkill river, to Spring Garden street, to Thirty-first street, to Rockland, to Thirty-ninth street, to Haverford avenue, to Fortieth street, to Filbert street, to Forty-first street, to Powelton avenue, to Market street, and on Second street, Wood street, Germantown avenue, Third street, Oxford street, and Fourth street to Diamond street.

The Western Union Telegraph Company has taken down 30 dead wires, or about 17 miles on Ridge avenue, between Tenth and Broad streets.

The Brush Electric Light Company took down two wires and eight poles on Wallace street, between Fifteenth and Seventeenth streets.

Number of Telegraph Messages.

Five hundred and seventeen thousand six hundred and twenty-four messages were transmitted over the circuits constituting the Police Telegraph system during 1896, an increase of 22,911 over 1895.

Operations of the Telephone Switchboard.

By an addition of two operators to the telephone switchboard during 1896, the operations of the board were greatly facilitated; 780,319 connections were made and 32,318 messages were received on the 178 circuits connected to the board, an increase over 1895 of 297,734 connections, and a decrease of 4,121 messages. The decrease in the number of messages was brought about by an order emanating from the Director that all messages intended for transmission over the police wires were to be written out and properly signed.

Number of Alarms of Fire.

Seven hundred and sixty-four alarms were transmitted over the wires of the alarm system during the year; first alarms, 708; second alarms, 38; third alarms, 8; fourth alarms, 4; false alarms, 6. The six alarms rated as false were given from boxes having keyless doors.

One hundred and eight alarms were received over the signal wires from boxes in localities from which alarms had already been transmitted, but were not transmitted over the alarm circuits.

Thirteen alarms were received over the Pneumatic Fire Alarm Telegraph Co.'s fire circuit, and transmitted by telephone to the engine company nearest the locality from which they were given.

Number of Instruments, etc., in use and owned by the City.

The Electrical Bureau had in use at the close of 1896, the following :

48 police dial instruments.

48 relays and bell magnets on marble bases.

76 alarm instruments located in engine-houses, depots, etc., of which 11 are private.

885 signal boxes, 55 of which are private and 9 on stages of theatres.

159 keyless doors.

63 bell magnets and keys connected with fire signal and telephone service.

31 police signal telephone office setts.

324 police booths.

512 police patrol-signal boxes, of which 172 are wall boxes and 15 are located in banks and other private institutions.

829 telephones.

6,432 wood poles.

1,816 iron poles.

1,440.57 miles of overhead wire.

62.6 miles of telegraph and telephone cable underground.

1,918 miles of telegraph and telephone conductors underground.

43.42 miles of E. L. cable underground.

221,830 feet of underground conduit.

1,544,486 feet of ducts.

785 mast-arms.

10 iron patrol-box posts.

54 iron signal-box posts.

585 junction boxes.

581 manholes.

1 three-dial manual repeater.

1 four-dial manual repeater.

6 banks of relays, 5 circuits to a bank.

8 banks of relays, 5 magnets in each.

30 bell magnets.

1 telephone switchboard, capacity 325 circuits.

1 fire-alarm switchboard, capacity 100 circuits.

3,000 cells, Callaud battery.

2,160 cells, Leclanche, dry, and other open circuit batteries.

80 cells chloride accumulator batteries.

1 motor dynamo for telephone switchboard work and the supervision of 6361 electric lights.

Number of Calls, Police Signal System.

Four million seven hundred and fifty-four thousand five hundred and eighteen calls, an increase of 355,470 over

1895, were made on the Police Signal and Telephone service during the year; 4,708,472 were telephone calls, 36,964 of which were reports from private institutions, and 46,046 wagon calls.

A summary of the wagon calls shows 29,343 were for the conveyance of prisoners, 7,468 for the conveyance of injured persons, 1,091 for the conveyance of officers to and from fires, and 8,144 for miscellaneous work.

Construction and Maintenance.

After the plans are formulated by the officers of the Bureau, the construction and maintenance of the various services under the charge of this Bureau are entrusted to the supervision and care of the Assistant Managers, Chief Line Inspector, and the Corps of Inspectors, the magnitude of whose duties are not approached by a similar body of men (if there be any) in any city in the country.

The first Assistant Manager has the supervision of all underground work, in addition to his other duties; has laid 31,287 feet of conduit, laid and connected 95,084 feet of telegraph and telephone cable; 1.52 miles of electric light cable; connected 8 junction poles for cable work, constructed 113 manholes, erected and wired 34 mast-arms, erected 52 iron electric light poles, erected 10 iron signal box posts, and exercised a general supervision of all underground work being done by private corporations.

The Chief Line Inspector having charge of the overhead construction and maintenance, has used in extensions of and repairs to the fire, patrol and telephone services of the City :

Four hundred and ninety-five wood and iron poles, 1,836 cross-arms, 203.6 miles of wire, 2,679 feet iron pipe for patrol and fire boxes, erected 43 signal boxes, lowered 157 signal boxes, moved 38 signal boxes, erected 23 and lowered 7 patrol wall boxes; erected 14, moved 32 and reset 5 booths; moved 107, reset 109, abandoned and took down 69 poles; dug out 176 stumps of old poles, paved around 652 poles, cemented 95 poles, relaid 53 flag stones, trimmed 615 trees, put in 105 guys and erected 6,300 feet aerial cable, and took down 67.34 miles of city wire.

They have also taken down a great quantity of dead wire from house tops, which had been reported by the police and others.

Supervision and Construction.

The time of one inspector has been given almost exclusively to the supervision and inspection of the repairs and extensions to trolley systems in this City; the Assistant Manager, together with the Corps of Inspectors, has by the closest attention to details, maintained the various systems under our control to a point of the highest efficiency.

Miscellaneous.

It is astonishing the amount of detail work that can be accomplished in an office embracing the systems covered by a Bureau such as this; the almost innumerable call bells, buzzers, push buttons, call boxes, telephone, telegraph, electric light and other connections with the increased amount of wire work incidental thereto, together with the calls made on us by the Bureaus and offices in City Departments, other than the Department of Public Safety, seem to be without limit.

The Bureaus of Gas, Water, Surveys, and the Park Commission have requested us, after consultation, to better their telephonic service; in every instance we have undertaken the task and brought their services to a successful working condition; although in every instance we found them in a deplorable condition, with service absolutely without merit.

We have been called on to superintend and oversee the installation of an incandescent electric light plant at the Philadelphia Hospital, and it was only on the final tests made by us in other directions that electrical conditions were accepted by other Departments, and the contracts made with corporations, other than the City, brought to a successful conclusion.

The amount of electrical work, other than electric lighting, incidental to a building like Philadelphia's City Hall, is tremendous, and there is no city in the country wherein the work falls on a similar office, as it does in this City. In most cities, each office gives its work to some private concern to attend to, but we are proud to say Philadelphia does things different from this and places all its electrical services under one head, thereby centralizing the responsibility. The electrical service in our City Hall is assuming tremendous proportions and will, when all municipal departments are located under its roof, become one of the mose important services under the care of this Bureau.

The occupants of the numerous Engine, Police, Patrol and other Municipal buildings are feeling the necessity of the advances made in all electrical improvements, and constantly, and successfully, demand of us the conveniences incidental thereto.

The Mayor's new quarters on the north side of City Hall, were completely and fully equipped with all manner of electrical connections, necessary and incidental to an office of such magnificent proportions.

Owing to the temporary transfer of the offices of the Clerks of Councils from the fourth to the fifth floor of City Hall during the summer months, it became necessary for this Bureau to duplicate all the fourth floor work on the fifth floor, and again on resuming their old quarters on the fourth floor, transfer the numerous connections, making the work one of considerable time and much labor.

A representative of the Municipal Cable Company of Boston, Mass., called on the Chief of the Bureau with reference to a make of cable served with a braided covering termed "circular loom," expressing a desire to have the City test it. It was explained to the party representing the company that the City made no provisons for experimental research, and those desiring the City to experiment with, or test, any product, must present us with a sufficient quantity to properly experiment with it. The facts of the case were presented to the company, who contributed 6,300 feet of 4 conductor cable, which was placed in position between the main and sub-stations of the Ninth Police District. We found the service between those two stations improved to such an extent that those whose duty it was to use it, thought the line was open, the circuit, which had heretofore been noisy from induction, being "dead quiet." The cable presented us is made up of four rubber (two red, two black) covered conductors, surrounded with a tape, the whole being served with a very hard, tough and fibrous braid (circular loom) capable, so it is stated, of resisting abrasion from trees, etc., to an unlimited extent; samples of this cable made up into various combinations for either overhead or underground work, have been furnished us.

During the season, the "disinfecting cart" of the Bureau of Health was in operation. The attention of this Bureau was required to look after the electrical machinery used in the manufacture of the disinfectant "Electrozone." From 500 to 1,000 gallons of this material were made daily, the product supplanting all other forms of disinfectant.

Owing to the formation of ice in the Delaware river, the services of the "Electric Launch," attached to the

Police Tug "Stokley," and over which the Bureau has a supervising interest, was late in the year laid up in winter quarters at the House of Correction wharf. The services of this Bureau are necessary on such occasions, owing to cleansing and renewing process of the motor and batteries contained in her.

In my last report mention was made of 80 cells of battery that had been presented the Bureau by the Chloride Accumulator Company for test, giving in detail a resume of its work and condition. Toward the first of October, or very nearly eighteen months after being set up, it showed rapid signs of deterioration. An investigation showed the fault to be in the manner in which the elements were placed in the cell, being permitted to rest on the bottom of the jar,—the dross falling to the bottom, settled in a mass, short circuiting the elements, disintegrating the positive plates. The attention of the company was directed to the defect, and without cost to the City, the entire battery was renewed, the elements being suspended from the top of the jar, instead of being permitted to stand on the bottom. After being renewed, October 13th, it was changed and placed in circuit with the north, south and west police wires, charging at 6 ampere hours, and discharging at about 4.3 ampere hours per day; the working limit on discharge seems to be about 5 ampere hours.

Fearing danger by fire, from the wires that had accumulated on Independence Hall, at Fifth and Chestnut streets, this Bureau was called on to remove all dead or unused wires from it and its vicinity.

About 2 o'clock on the morning of April 21, 1896, Linford L. Biles, residing 1031 Tasker street, was killed, and his son badly shocked, by contact with a dead wire which ran across the rear of 1033 Tasker street, among a lot of live wires, and from there over housetops and on poles to the southeast corner of Passyunk avenue and Christian street, where it was tied down on a Philadelphia Local Telegraph Co.'s pole. It was crossed with an electric light wire of the Southern Electric Light and Power Company at Passyunk avenue to Christian street.

On the evening of June 18, 1896, Richard Menzies and Morris A. Wood, were both killed by coming in contact with a wire screen that had been charged by being tied to an electric light wire on the roof of a photograph gallery in Washington Park, Twenty-sixth street and Allegheny avenue. From the information obtained from our inspector, it appears that some weeks previous to the accident, Mr. Menzies and Mr. Wood, together with Mr. Young, an engineer in the Park, placed a wire screen over the entire glass portion of the photograph gallery, to protect the glass from being broken by base balls, etc., etc. While the work was being done, they were cautioned about the presence of the electric light wire and told to keep away from it. In spite of this warning, it was found after the accident, they had wrapped the strands of the screen around the electric light wire and tacked them both fast to the roof.

On the evening above mentioned, Menzies walked to the gallery, supposedly to speak with Mr. Woods, when upon laying his hand upon the screen, he received the current which instantly killed him. Woods, on being informed of the accident, ran from the building, and on being warned by one of the Electric Light Company's men not to go near the screen as it was charged, exclaimed, "Nonsense," laid his hand on the screen and received a shock which instantly killed him also.

About 7.30 o'clock, on the evening of December 29, 1896, Joseph Merkenslider, a lad of about 15 years, was killed by laying his hand on Signal Box No. 45, at Second and Callowhill streets; the signal box was heavily charged with an electric light current from two dead No. 12 iron wires, coming in contact with the pipe leading to the box; these wires were touching a guy wire, belonging to the Bell Telephone Co. of Philadelphia, this was in contact with an electric light wire, belonging to the Brush Electric Light Company; the path of the current being from the electric light wire to the guy wire, to the two dead wires, to the pipe leading to the signal box, thence to the box itself.

At the time of the accident the current was throwing off sparks from the box to such an extent as to gather quite a crowd of curiosity seekers to the point. Among others, young Merkenslider, who in a moment of daring—or being urged by some one in the crowd—touched the box, the current passing through him, killing him almost instantly.

In conclusion, permit me to express my appreciation of the able manner in which the officers and employees of the Bureau have performed their several duties, and to express myself as duly grateful for the courtesy and assistance rendered me in the administration of the affairs of the Bureau, by the Mayor, the Director of Public Works, and yourself.

Respectfully,
D. R. WALKER,
Chief of Bureau.

Summary of the Operations of the Police and Fire Alarm Telegraph during the Year 1896.

Districts.	Whole number of messages.	Received.	Sent.	Coroner notified.	Grand Jury.	Relating to fires.	Description of				Returned to friends and owners.				Classified.	Miscellaneous.	Missing persons.		Lost children.		Estrays.			Vehicles.						
							Stolen property.	Criminals.	Missing persons.	Lost children.	Missing persons.	Lost children.	Estrays.	Vehicles.			Men.	Women.	Boys.	Girls.	Horses.	Mules.	Cattle.	Carriages.	Wagons.	Carts.	Drays.	Push carts.	Bicycles.	Sleighs.
First	11,837	8,595	3,242	19	51	740	1,716	675	1,402	98	6	62	20	18	4,802	7,035	5	1	42	20	19	1	......	2	11	1	....	4		
Second	38,161	19,449	18,712	70	1,190	840	2,304	2,270	1,549	624	21	296	49	55	9,268	28,893	5	16	178	118	49	...	......	3	32	1	...	19		
Third	27,282	14,042	13,240	50	494	799	2,140	1,968	1,415	161	11	211	21	49	7,319	19,963	2	9	137	74	19	2	....	...	17	1	1	30		
Fourth	11,974	7,309	4,665	25	57	776	2,036	1,017	849	168	12	96	12	27	5,075	6,899	4	8	56	40	12	...	...	3	9	1	...	14		
Fifth	17,042	7,099	9,943	35	148	748	1,670	1,001	827	66	8	66	25	26	4,615	12,4 7	...	3	41	25	25	...	...	1	17	...	....	8		
Sixth	9,677	5,940	3,737	19	128	790	2,086	1,177	1,396	113	7	56	24	34	5,830	3,847	1	6	38	18	21	3	......	5	12	3	...	12	2	
Seventh	13,463	9,086	4,377	40	93	837	1,979	680	886	86	4	86	49	34	4,783	8,680	1	3	55	31	11	...	38	...	11	...	...	23		
Eighth	9,789	6,026	3,763	39	140	798	1,861	1,150	852	146	7	96	27	34	5,150	4,689	3	4	68	28	25	1	1	4	16	....	....	11	3	
Ninth	11,140	7,779	3,361	10	36	764	1,093	1,146	943	32	4	82	18	17	4,095	4,045	1	3	21	11	16	...	2	2	14	1				
Tenth	20,733	10,855	9,878	53	98	851	1,404	311	1,488	609	89	147	30	80	5,050	15,683	32	7	80	67	28	...	2	2	18	1	....	9		
Eleventh	8,984	5,732	3,252	44	28	737	1,215	947	945	89	7	89	13	14	4,128	4,856	4	3	57	32	13	...	......	3	6	2	....	3		
Twelfth	11,907	7,169	4,738	33	66	806	1,887	679	1,186	208	12	93	18	14	4,997	6,910	7	5	58	35	9	2	2	1	7	....	....	6		
Thirteenth	10,758	7,707	3,051	29	44	749	1,818	821	1,340	1	23	18	7	5	4,855	5,903	16	7	13	5	7	....	......	...	5					
Fourteenth	30,358	15,913	14,445	33	78	795	1,419	2,068	825	104	...	8	6	1	5,387	25,021	...	...	4	4	6	...	......	...	1					

Summary of the Operations of the Police and Fire Alarm Telegraph during the Year 1896.—Continued.

DISTRICTS.	Whole number of messages.	Received.	Sent.	Coroner notified.	Grand Jury.	Relating to fires.	Description of —				Returned to friends and owners.				Classified.	Miscellaneous.	Missing persons.		Lost children.		Estrays.			Vehicles.						
							Stolen property.	Criminals.	Missing persons.	Lost children.	Missing persons.	Lost children.	Estrays.	Vehicles.			Men.	Women.	Boys.	Girls.	Horses.	Mules.	Cattle.	Carriages.	Wagons.	Carts.	Drays.	Push carts.	Bicycles.	Sleighs.
Fifteenth	13,065	9,415	3,650	14	20	735	1,239	965	825	18	25	18	19	5	3,883	9,182	19	6	11	7	15	...	4	...	5					
Sixteenth	9,340	5,612	3,728	44	50	738	2,071	1,522	1,282	91	14	91	27	18	5,948	3,392	5	9	61	30	25	.	2	2	16	...	...			
Seventeenth	12,970	8,740	4,230	53	127	783	1,981	1,089	1,009	295	74	103	34	20	5,571	7,399	53	21	72	31	31	...	3	...	18	...	...	2		
Eighteenth	13,921	9,834	4,087	31	51	744	1,557	868	708	230	18	94	14	17	4,332	9,589	5	13	62	32	14	...	......	...	11	...	...	6		
Nineteenth	11,802	8,086	3,716	19	134	764	1,503	847	722	134	3	100	20	24	4,270	7,532	2	1	55	45	19	1	......	2	17	...	...	5		
Twentieth	17,339	9,045	8,294	14	42	757	1,636	949	835	37	3	26	26	24	4,349	12,990	1	2	19	7	26	...	......	3	19	...	...	2		
Twenty-first	13,293	9,785	3,508	35	58	774	1,578	1,088	1,275	157	24	44	44	33	5,110	8,183	15	9	38	6	40	1	3	3	23	7				
Twenty-second	19,137	9,918	9,189	72	114	759	1,951	941	980	162	40	129	104	63	5,318	13,819	25	15	91	38	84	6	14	12	36	3	...	12		
Twenty-third	9,490	6,090	3,400	37	67	754	1,616	870	892	105	4	63	17	12	4,537	4,953	......	4	42	21	16	...	1	1	8	...	...	8		
Twenty-fourth	9,963	6,630	3,333	54	77	752	1,891	885	820	....	1	71	18	9	4,578	5,385	1	......	47	24	16	...	2	...	8	...	...	1		
Twenty-fifth	25,038	13,280	11,758	22	184	761	1,976	1,159	1,171	134	11	108	9	9	5,542	19,496	5	6	64	44	8	1	......	1	4	1	...	1		
Twenty-sixth	8,986	5,587	3,399	18	51	780	1,600	899	693	164	2	83	6	9	4,305	4,681	......	2	57	26	6	...	......	1	4	...	...	4		
Twenty-seventh	13,613	10,920	2,693	17	8	746	1,157	633	1,070	....	5	5	14	2	3,657	9,956	4	1	5	......	7	..	7	2						
Twenty-eighth	24,548	13,127	11,421	4	44	748	1,481	1,123	1,477	108	3	59	24	21	5,092	19,456	3	......	42	17	23	...	1	6	9	...	...	6		

Summary of the Operations of the Police and Fire Alarm Telegraph during the Year 1896.—Continued.

DISTRICTS.	Whole number of messages.	Received.	Sent.	Coroner notified.	Grand Jury.	Relating to fires.	Description of				Returned to friends and owners.				Classified.	Miscellaneous.	Missing persons.		Lost children.		Estrays.			Vehicles.						
							Stolen property.	Criminals.	Missing persons.	Lost children.	Missing persons.	Lost children.	Estrays.	Vehicles.			Men.	Women.	Boys.	Girls.	Horses.	Mules.	Cattle.	Carriages.	Wagons.	Carts.	Drays.	Push carts.	Bicycles.	Sleighs.
Twenty-ninth	11,954	8,404	3,550	29	64	748	1,985	2,041	1,389	32	11	82	51	8	6,390	5,564	9	2	27	5	39	3	9	4	8	1				
Thirtieth	12,232	8,658	3,574	24	67	721	2,046	1,122	1,766	191	26	109	42	27	5,641	6,591	12	14	69	40	28	4	10	3	9	13	...	2		
Chestnut Hill	9,310	8,112	1,198	6	12	757	1,325	1,684	1,041	9	1	9	16	6	4,866	4,444	1	.....	6	3	10	1	5	8	2	1				
Sub. Ninth	8,940	6,471	2,469	17	2	768	2,125	1,292	1,2 3	55	9	24	7	7	5,549	4,391	7	2	15	9	6	...	1	2	4	...	...	1		
Sub. Twenty-first	9,370	8,104	1,266	10	....	666	1,278	846	716	310	1	4	56	5	3,892	5,478	1	......	2	2	22	...	34	1	3	1				
Sub. Twenty-fifth	16,290	6,753	9,537	21	31	764	2,280	1,737	2,640	162	2	67	18	13	7,735	8,555	......	2	40	27	14	...	4	1	8	1	...	3		
Roxborough	9,332	8,082	1,250	12	....	726	1,402	660	1,128	....	1	....	2	......	3,931	5,401	......	1	....	......	2									
Olney	7,047	5,656	1,391	4	2	479	848	798	893	....	1	....	5	1	3,031	4,016	1	......	....	......	4	...	1	...	1					
Holmesburg	7,458	6,662	796	2	....	744	1,184	945	815	....	3	....	6	1	3,680	3,778	1	2	....	......	4	...	2	...	1					
Falls	15,544	8,156	7,388	15	....	768	1,267	1,001	879	....	3	1	18	5	3,957	11,587	2	1	1	......	7	...	11	2	3					
Bridesburg	9,070	7,888	1,182	16	....	751	1,041	635	789	....	......	2	1	1	3,226	5,844	......	......	2	.....	1	...	....	..	1					
Nicetown	19,467	10,106	9,361	14	43	745	2,109	750	892	38	......	13	18	7	4,629	14,338	......	......	9	4	14	2	2	2	1	3	...	1		
	571,624	351,852	219,772	1,093	3,889	30,262	66,708	43,171	43,583	4,932	441	2,611	930	703	198,323	373,301	253	188	1,685	926	741	28	161	77	390	42	1	188		

Summary of the Police Signal and Telephone Service—Telephone Calls during the year 1896.

MONTHS.	Patrol No. 2. 2d District.	Patrol No. 3. 3d & 4th Districts.	Patrol No. 7. 7th & 8th Districts.	Patrol No. 9. 9th District.	Patrol No. 10. 10th District.	Patrol No. 11. 11th District.	Patrol No. 12. 12th District.	Patrol No. 13. 13th District.	Patrol No. 14. 14th District.	Patrol No. 15. 15th District.	Patrol No. 16. 16th District.	Patrol No. 17. 1st & 17th Districts.
January..................	14,520	30,761	25,730	20,008	13,315	12,658	15,467	9,256	16,868	9,984	10,343	30,117
February................	13,567	28,711	23,787	18,751	12,706	11,601	14,572	8,486	13,809	9,241	9,829	28,154
March.......................	14,468	30,844	26,451	19,865	13,448	12,904	16,098	9,172	17,442	9,971	10,703	30,340
April.........................	13,987	30,534	25,161	19,318	13,111	12,448	15,042	8,743	16,268	9.472	10,062	28,930
May............................	14,554	31,582	26,492	20,019	13,903	12,672	15,342	8,950	17,364	9,708	10,035	30,463
June...........................	14,017	30,700	25,900	19,256	13,234	12,417	13,986	9,172	15,177	9,322	9,548	30,604
July............................	14,489	31,769	26,628	19,962	13,851	12,320	14,652	8,543	16,905	9,575	9,399	31,348
August	14,463	31,679	26,535	19,850	13,326	12,693	14,734	8,513	15,462	9,714	9,548	29,641
September...............	13,983	30,713	25,057	19,172	13,239	12,388	14,571	8,111	15,370	9,547	9,931	28,305
October	14,463	31,511	27,874	19,876	13,417	12,864	15,726	9,207	17,364	9,770	10,654	30,311
November...............	13,967	29,998	26,473	19,249	13,150	12,382	14,689	8,633	16,445	9,475	10,034	29,035
December	14,434	31,653	27,749	19,950	13,777	13,002	15,234	9,212	17,380	10,070	10,617	30,690
Total..................	170,912	370,455	313,837	235,276	160,177	150,319	180,113	105,998	195,854	115,819	120,703	357,938

Summary of the Police Signal and Telephone Service—Telephone Calls during the year 1896—Continued.

MONTHS.	Patrol No. 18. 18th & 26th Districts.	Patrol No. 19. 19th & 5th Districts.	Patrol No. 20. 20th & 6th Districts.	Patrol No. 21. 21st District.	Patrol No. 22. 22d & 28th Districts.	Patrol No. 23. 23d District.	Patrol No. 24. 24th District.	Patrol No. 25. 25th District.	Patrol No. 29. 29th District.	Patrol No. 30. 30th District.	TOTAL.
January	28,486	26,570	23,411	22,003	25,473	12,627	7,445	19,903	6,572	13,802	395,319
February	26,706	24,875	21,204	20,880	23,758	14,764	6,915	18,731	6,223	13,035	370,305
March	28,626	26,267	22,803	22,679	25,919	17,184	7,504	18,590	6,854	13,633	401,715
April	27,753	25,169	22,107	21,846	25,421	16,198	7,268	18,064	6,652	13,386	386,440
May	28,744	25,759	21,923	21,193	25,147	16,255	7,556	19,612	6,617	13,659	397,579
June	27,757	24,422	21,151	21,300	24,652	17,267	7,280	19,374	6,788	13,803	387,127
July	28,721	24,455	21,749	21,524	24,377	16,086	7,409	19,226	6,565	13,525	392,581
August	28,887	24,267	21,635	21,849	25,327	14,690	7,606	18,325	6,391	13,410	388,045
September	27,863	24,151	22,735	21,208	24,791	14,415	7,845	18,084	6,417	14,847	382,743
October	28,643	25,749	23,997	22,606	26,121	17.890	8,000	19,843	7,149	14,899	408,154
November	27,777	24,098	22,788	21,880	25,517	16,674	7,766	18,356	6,634	14,857	389,827
December	28,761	25,634	24,786	21,862	26,432	17,509	7,960	20,439	6,807	14,679	408,637
Total	338,727	301,416	270,289	259,830	302,935	191,509	90,554	228,547	79,699	167,535	4,708,472

Summary of the Police Signal and Telephone Service—Wagon Calls during the Year 1896.

MONTHS.	Patrol No. 2. 2d District.	Patrol No. 3. 3d & 4th Districts.	Patrol No. 7. 7th & 8th Districts.	Patrol No. 9. 9th District.	Patrol No. 10. 10th District.	Patrol No. 11. 11th District.	Patrol No. 12. 12th District.	Patrol No. 13. 13th District.	Patrol No. 14. 14th District.	Patrol No. 15. 15th District.	Patrol No. 16. 16th District.	Patrol No. 17. 1st & 17th Districts.	Patrol No. 18. 18th & 26th Districts.	Patrol No. 19. 5th & 19th Districts.	Patrol No. 20. 6th & 20th Districts.	Patrol No. 21. 21st District.	Patrol No. 22. 22d & 28th Districts.	Patrol No. 23. 23d District.	Patrol No. 24. 24th District.	Patrol No. 25. 25th District.	Patrol No. 29. 29th District.	Patrol No. 30. 30th District.	Total.
January.........	268	354	195	131	122	71	108	47	89	33	105	191	236	148	287	127	144	62	84	156	66	102	3,126
February........	221	352	238	164	148	73	104	37	66	28	106	207	271	169	270	141	152	72	76	149	94	83	3,239
March............	232	364	220	148	147	91	117	42	63	44	148	218	275	145	279	117	139	88	79	119	105	93	3,273
April..............	267	360	29	166	174	71	121	55	81	30	219	218	294	181	240	143	127	116	89	178	145	185	3,703
May...............	325	454	317	215	213	118	121	69	74	51	164	245	339	215	268	228	151	90	128	223	150	129	4,287
June...............	311	428	394	194	186	95	143	80	91	42	168	245	326	178	241	159	145	95	97	172	168	138	3,986
July...............	306	491	301	210	181	98	142	72	94	40	154	244	330	134	239	201	251	96	110	207	185	131	4,217
August...........	313	452	352	217	205	134	178	88	123	56	153	285	403	204	300	227	167	123	120	203	203	159	4,665
September......	282	471	325	253	214	105	128	73	80	39	131	281	328	180	279	180	146	121	100	174	166	130	4,186
October.........	250	433	266	218	176	112	125	71	101	28	140	251	290	216	308	175	128	95	102	175	126	82	3,863
November......	227	385	237	211	161	132	117	64	67	24	119	239	297	179	306	146	166	84	103	151	106	92	3,613
December.......	231	486	294	219	208	122	138	65	73	62	124	222	343	187	345	143	162	94	74	127	95	99	3,883
Total.......	3,236	5,030	3,329	2,346	2,135	1,222	1,542	765	1,002	447	1,731	2,846	3,732	2,139	3,362	1,990	1,878	1,136	1,162	2,034	1,609	1,573	46,046

Summary of the Police Signal and Telephone Service.

MONTHS.	BANK CALLS.															
	Bank of the Republic. Patrol No. 3.	Guarantee Trust Co. Patrol No. 8.	Keystone Watch Case Co. Patrol No. 9.	Germantown Bank. Patrol No. 14.	Germantown Trust Co. Patrol No. 14.	Southwestern Bank. Patrol No. 18.	West End Trust Co. Patrol No. 19.	Market Street Nat. Bank. Patrol No. 20.	Commonwealth Trust. Pa'rol No. 20.	Centennial Bank. Patrol No. 21.	Univ. of Penna. Library. Patrol No. 21.	Northwestern Nat. Bank. Patrol No 23.	Total Bank Calls.	Total Wagon Calls.	Total Telephone Calls.	Total Bank, Wagon and Telephone Calls.
January	124	158	341	217	372	448	324	62	372	186	372	158	3,129	3,126	395,319	398,445
February	116	146	319	176	307	377	315	58	348	174	348	186	2,870	3,239	370,305	373,544
March	124	162	341	216	372	434	324	62	364	186	372	194	3,151	3,273	401,715	404,988
April	120	156	330	210	358	394	314	60	360	180	360	193	3,035	3,703	386,440	390,143
May	124	164	341	217	372	426	301	62	372	186	372	186	3,123	4,287	397,579	401,866
June	120	158	330	189	359	410	306	60	360	180	360	195	3,027	3,936	387,127	391,118
July	124	162	341	217	372	396	334	62	372	186	372	192	3,130	4,217	392,581	396,798
August	124	158	341	196	372	422	324	62	372	186	372	184	3,113	4,665	388,045	392,710
September	120	154	330	203	360	393	314	60	360	180	360	183	3,017	4,186	382,743	386,929
October	124	164	341	217	372	407	315	62	372	186	372	193	3,130	3,868	408,154	412,022
November	120	160	330	210	360	412	383	60	360	180	360	198	3,083	3,613	389,827	393,440
December	124	164	341	217	371	416	333	62	372	186	372	198	3,156	3,883	408,637	412,520
Totals	1,464	1,906	4,026	2,485	4,347	4,930	3,837	732	4,384	2,196	4,392	2,265	36,961	46,046	4,708,472	4,754,518

Showing the Box in each District having the greatest Number of Telephone Calls during the Year 1896.

DISTRICT.	Number of Box.	LOCATION.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
First	218	Catherine, below Fifteenth street	1,200	1,155	1,189	1,115	1,161	1,159	1,154	1,192	1,148	1,188	1,152	1,174	13,982
Second	55	Fourth and Christian streets	1,580	1,485	1,585	1,533	1,580	1,516	1,572	1,580	1,530	1,573	1,527	1,576	18,637
Third	321	Delaware avenue and Dock street	2,245	2,106	2,251	2,172	2,246	2,189	2,260	2,251	2,180	2,257	2,194	2,261	26,612
Fourth	3	Sixth and Worth streets	1,954	1,827	1,957	1,893	1,957	1,891	1,957	1,954	1,890	1,581	1,532	1,681	22,074
Fifth	25	Cope and Sansom streets	1,868	1,235	1,405	1,311	1,360	1,274	1,282	1,282	1,317	1,899	1,293	1,296	15,822
Sixth	56	Ellwyn and Race streets	1,544	1,317	1,303	1,386	883	1,472	1,452	1,420	1,535	1,539	1,593	1,623	16,867
Seventh	42	Delaware avenue and Green street	1,210	1,134	1,215	1,172	1,218	1,180	1,212	1,216	1,174	1,211	1,170	1,220	14,332
Eighth	15	Thirteenth and Wood streets	1,341	1,189	1,344	1,309	1,486	1,370	1,395	1,370	1,295	1,316	1,365	1,345	16,125
Ninth	35	Nineteenth and Hamilton streets	2,291	2,146	2,297	2,220	2,295	2,219	2,294	2,297	2,224	2,295	2,226	2,297	27,104
Tenth	421	Second and Girard avenue	1,581	1,479	1,582	1,530	1,581	1,530	1,581	1,587	1,530	1,581	1,530	1,581	18,673
Eleventh	315	Belgrade and Palmer streets	1,583	1,457	1,638	1,531	1,560	1,551	1,522	1,543	1,554	1,589	1,486	1,603	18,5 2
Twelfth	3	Ontario street and Girard avenue	1,321	1,768	1,978	1,908	1,884	1,686	1,858	1,757	1,893	1,932	1,913	1,985	21,883
Thirteenth	5	Lyceum avenue and Blair street	1,442	1,060	1,155	1,091	1,097	1,142	1,024	1,096	991	1,106	1,038	1,103	13,045
Fourteenth	332	Germantown avenue and Wister st	816	663	826	743	807	663	798	710	700	835	774	807	9,147
Fifteenth	333	Frankford avenue and Sellers street	1,224	1,172	1,270	1,195	1,215	1,189	1,305	1,280	1,204	1,227	1,181	1,265	14,677

Showing the Box in each District having the greatest Number of Telephone Calls, etc.—Continued.

DISTRICT.	Number of Box.	LOCATION.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Sixteenth	27	Thirty-sixth st. and Lancaster ave....	1,461	1,430	1,580	1,378	1,395	1,428	1,400	1,378	1,376	1,511	1,430	1,478	17,185
Seventeenth.........	144	Thirteenth and Reed streets.............	1,923	1,779	1,995	1,937	2,286	2,760	2,666	2,340	2,282	2,348	1,911	2,108	26,285
Eighteenth..........	3	Third and Norris streets...................	905	845	902	874	902	876	908	907	880	905	877	901	10,632
Nineteenth..........	18	Tenth and Rodman streets................	1,520	1,384	1,365	1,508	1,512	1,509	1,457	1,175	1,309	1,633	1,484	1,477	17,427
Twentieth............	52	Twenty-third and Market streets......	1,965	1,756	1,952	1,805	1,912	1,851	1,881	1,800	1,743	1,908	1,115	1,167	20,855
Twenty-first.........	26	Thirty-eighth and Sansom streets.....	2,008	1,926	2,132	1,951	1,898	1,932	1,901	1,931	1,922	2,095	2,006	1,589	23,291
Twenty-second.....	43	Eighteenth and York streets............	1,285	1,181	1,285	1,202	1,286	1,200	1,283	1,281	1,201	1,286	1,201	1,288	14,979
Twenty-third.......	21	Twenty-third st. and Columbia ave..	1,405	1,618	1,875	1,815	1,707	1,884	1,834	1,494	1,599	1,910	1,817	1,926	20,884
Twenty-fourth.....	8	Ann and Amber streets....................	574	541	570	551	564	560	568	574	563	592	586	584	6,827
Twenty-fifth........	322	Twelfth and Mifflin streets...............	1,444	1,354	1,342	1,288	1,488	1,404	1,419	1,410	1,313	1,424	1,355	1,505	16,696
Twenty-sixth	811	Cumberland and Jasper streets.........	1,172	1,105	1,170	1,136	1,174	1,137	1,184	1,187	1,140	1,175	1,189	1,179	13,898
Twenty-eighth.....	36	Twenty-ninth and Edgeley streets.....	1,681	1,270	1,178	1,108	1,064	1,064	969	1,094	1,068	1,062	1,069	1,129	18,756
Twenty-ninth.....	423	Forty-eighth st. and Lancaster ave...	1,281	1,221	1,347	1,275	1,258	1,286	1,300	1,340	1,273	1,336	1,249	1,330	15,494
Thirtieth.............	33	Kensington avenue and "C" street...	1,090	1,060	1,091	1,079	1,082	1,085	1,084	1,083	1,078	1,086	1,091	1,064	12,949

Synopsis of the Wagon Calls of the Various Patrols during the year 1896.

Months.	Patrol No. 2.					Patrol No. 3.					Patrol No. 7.				
	Conveyance of Prisoners.	Conveyance of Injured Persons.	Conveyance of Officers to and from Fires.	Miscellaneous.	Total Wagon Calls.	Conveyance of Prisoners.	Conveyance of Injured Persons.	Conveyance of Officers to and from Fires.	Miscellaneous.	Total Wagon Calls.	Conveyance of Prisoners.	Conveyance of Injured Persons.	Conveyance of Officers to and from Fires.	Miscellaneous.	Total Wagon Calls.
January	174	38	5	51	268	242	49	17	46	354	115	31	6	43	195
February	148	28	6	42	224	239	61	9	43	352	144	27	11	56	238
March	149	36	6	41	232	267	49	11	37	364	120	30	9	61	220
April	189	29	5	44	267	234	52	14	60	360	176	54	5	55	290
May	231	37	3	54	325	301	71	19	63	454	198	41	4	74	317
June	202	46	3	60	311	254	78	26	70	428	162	56	6	70	294
July	186	61	1	58	306	318	83	29	61	491	193	46	8	59	301
August	161	82	6	64	313	258	112	21	61	452	208	81	2	66	352
September	163	53	1	65	282	312	86	19	54	471	187	46	7	85	325
October	159	40	8	43	250	305	53	23	52	433	170	35	0	61	266
November	142	28	10	47	227	245	64	20	56	385	145	31	6	55	237
December	146	37	4	44	231	343	57	22	64	486	169	37	6	82	294
Totals...	2,050	515	58	613	3,286	3,318	815	230	667	5,080	1,982	515	65	767	3,329

Synopsis of the Wagon Calls of the Various Patrols during the year 1896.

MONTHS.	PATROL NO. 9.					PATROL NO. 10.					PATROL NO. 11.				
	Conveyance of Prisoners.	Conveyance of Injured Persons.	Conveyance of Officers to and from Fires.	Miscellaneous.	Total Wagon Calls.	Conveyance of Prisoners.	Conveyance of Injured Persons.	Conveyance of Officers to and from Fires.	Miscellaneous.	Total Wagon Calls.	Conveyance of Prisoners.	Conveyance of Injured Persons.	Conveyance of Officers to and from Fires.	Miscellaneous.	Total Wagon Calls.
January	88	25	3	15	131	94	11	5	9	122	50	15	1	5	71
February	91	44	5	24	164	119	14	6	9	148	56	9	2	6	73
March	98	25	3	22	148	104	26	4	13	147	70	8	2	11	91
April	111	30	4	21	166	126	12	3	33	174	53	9	1	8	71
May	136	45	1	33	215	165	21	3	24	213	76	16	3	23	118
June	140	34	3	17	194	131	33	2	20	186	67	13	1	14	95
July	133	43	2	32	210	140	27	0	14	181	68	23	0	7	98
August	140	43	2	32	217	139	51	2	13	205	93	34	2	5	134
September	159	40	4	50	253	164	22	2	26	214	76	14	1	14	105
October	136	26	3	53	218	134	22	2	18	176	90	14	1	7	112
November	123	33	2	53	211	128	16	4	13	161	91	21	2	15	132
December	149	38	4	28	219	175	18	4	11	208	91	19	4	8	122
Total	1,504	426	36	380	2,346	1,619	276	37	203	2,135	884	195	20	123	1,222

Synopsis of the Wagon Calls of the Various Patrols during the year 1896.

MONTHS.	PATROL NO. 12.					PATROL NO. 13.					PATROL NO. 14.				
	Conveyance of Prisoners.	Conveyance of Injured Persons.	Conveyance of Officers to and from Fires.	Miscellaneous.	Total Wagon Calls.	Conveyance of Prisoners.	Conveyance of Injured Persons.	Conveyance of Officers to and from Fires.	Miscellaneous.	Total Wagon Calls.	Conveyance of Prisoners.	Conveyance of Injured Persons.	Conveyance of Officers to and from Fires.	Miscellaneous.	Total Wagon Calls.
January	52	19	6	31	108	30	12	1	4	47	64	3	11	11	89
February	61	19	5	19	104	29	6	1	3	39	38	7	5	16	66
March	60	20	9	28	117	25	12	1	4	42	24	13	10	16	63
April	58	19	8	36	121	39	7	1	8	55	36	17	6	22	81
May	68	18	5	30	121	41	16	2	10	69	43	9	3	19	74
June	67	25	5	46	143	53	18	1	8	80	49	12	6	24	91
July	78	31	7	26	142	47	20	....	5	72	55	17	2	20	94
August	89	55	3	31	178	51	27	4	6	88	71	24	1	27	123
September	70	28	1	29	128	48	16	1	8	73	43	16	2	19	80
October	68	28	3	26	125	46	11	4	10	71	62	9	4	26	101
November	78	16	2	26	117	39	17	2	6	64	31	12	3	21	67
December	84	21	7	26	138	39	17	4	5	65	45	10	4	14	73
Totals	823	299	61	354	1,542	487	179	22	77	765	561	149	57	235	1,002

Synopsis of the Wagon Calls of the Various Patrols during the year 1896.

Months.	Patrol No. 15.					Patrol No. 16.					Patrol No. 17.				
	Conveyance of Prisoners.	Conveyance of Injured Persons.	Conveyance of Officers to and from Fires.	Miscellaneous.	Total Wagon Calls.	Conveyance of Prisoners.	Conveyance of Injured Persons.	Conveyance of Officers to and from Fires.	Miscellaneous.	Total Wagon Calls.	Conveyance of Prisoners.	Conveyance of Injured Persons.	Conveyance of Officers to and from Fires.	Miscellaneous.	Total Wagon Calls.
January	14	10	....	9	33	76	21	4	4	105	134	22	2	33	191
February	17	4	....	7	28	83	17	6	....	106	150	28	2	27	207
March	21	13	....	10	44	92	38	3	15	148	155	18	4	41	218
April	21	6	....	3	30	146	48	7	18	219	131	24	4	59	218
May	37	11	....	3	51	113	28	3	20	164	151	40	3	51	245
June	22	12	....	8	42	123	36	1	8	168	162	26	1	56	245
July	23	16	....	1	40	100	39	3	12	154	157	48	2	37	244
August	31	19	....	6	56	90	52	5	6	153	175	55	7	48	285
September	31	7	1	....	39	90	37	1	3	131	190	38	3	50	281
October	16	12	....	....	28	97	33	3	7	140	171	30	3	47	251
November	18	6	....	....	24	88	16	4	11	119	162	32	1	44	239
December	22	8	....	2	32	92	23	4	5	124	162	22	2	36	222
Total	273	124	1	49	447	1,190	388	44	109	1,731	1,900	383	34	529	2,846

Synopsis of the Wagon Calls of the Various Patrols during the year 1896.

MONTHS.	PATROL NO. 18.					PATROL NO. 19.					PATROL NO. 20.				
	Conveyance of Prisoners.	Conveyance of Injured Persons.	Conveyance of Officers to and from Fires.	Miscellaneous.	Total Wagon Calls.	Conveyance of Prisoners.	Conveyance of Injured Persons.	Conveyance of Officers to and from Fires.	Miscellaneous.	Total Wagon Calls.	Conveyance of Prisoners.	Conveyance of Injured Persons.	Conveyance of Officers to and from Fires.	Miscellaneous.	Total Wagon Calls.
January	134	18	3	81	236	89	19	2	38	148	199	37	5	46	287
February	130	16	4	121	271	105	19	3	42	169	197	30	6	37	270
March	137	23	5	110	275	92	18	3	32	145	215	32	4	28	279
April	156	24	9	105	294	130	22	2	30	184	168	40	3	29	240
May	174	30	2	133	339	153	20	1	41	215	191	43	1	33	268
June	182	25	5	114	326	125	19	2	32	178	155	49	2	35	241
July	180	29	8	113	330	79	21	2	32	134	155	47	5	32	239
August	211	59	2	131	403	145	19	0	40	204	196	69	0	35	300
September	191	22	1	114	328	118	19	2	41	180	211	46	2	20	279
October	158	29	3	100	290	162	13	1	40	216	245	30	2	31	308
November	164	30	4	99	297	124	15	3	37	178	248	31	0	27	306
December	175	38	4	126	343	140	10	3	34	187	259	48	2	36	345
Totals	1,992	343	50	1,347	3,732	1,462	214	24	439	2,139	2,439	502	32	389	3,362

Synopsis of the Wagon Calls of the Various Patrols during the year 1896.

Months.	Patrol No. 21.					Patrol No. 22.					Patrol No. 23.				
	Conveyance of Prisoners.	Conveyance of Injured Persons.	Conveyance of Officers to and from Fires.	Miscellaneous.	Total Wagon Calls.	Conveyance of Prisoners.	Conveyance of Injured Persons.	Conveyance of Officers to and from Fires.	Miscellaneous.	Total Wagon Calls.	Conveyance of Prisoners.	Conveyance of Injured Persons.	Conveyance of Officers to and from Fires.	Miscellaneous.	Total Wagon Calls.
January	71	35	5	16	127	75	20	16	33	144	31	16	3	12	62
February	86	34	8	16	144	72	27	10	43	152	40	13	2	17	72
March	54	46	2	15	177	66	22	13	38	139	43	23	6	16	88
April	78	47	7	11	143	64	12	15	36	127	71	15	6	24	116
May	143	45	5	35	228	81	34	8	28	151	49	17	1	23	90
June	102	37	2	18	159	76	32	6	31	145	44	21	3	27	95
July	142	38	3	18	201	148	57	13	33	251	55	17	4	20	96
August	138	68	3	18	227	90	40	7	30	167	53	50	2	18	123
September	108	48	3	21	180	84	33	2	27	146	67	25	2	27	121
October	109	51	2	13	175	65	27	5	31	128	45	27	....	23	95
November	97	31	3	15	146	102	28	5	31	166	51	12	1	20	84
December	87	40	3	13	143	85	41	8	28	162	69	13	2	10	94
Totals	1,215	520	46	209	1,990	1,008	378	108	389	1,878	618	249	32	237	1,136

Synopsis of the Wagon Calls of the Various Patrols during the year 1896.

Months.	Patrol No. 24.					Patrol No. 25.					Patrol No. 29.				
	Conveyance of Prisoners.	Conveyance of Injured Persons.	Conveyance of Officers to and from Fires.	Miscellaneous.	Total Wagon Calls.	Conveyance of Prisoners.	Conveyance of Injured Persons.	Conveyance of Officers to and from Fires.	Miscellaneous.	Total Wagon Calls.	Conveyance of Prisoners.	Conveyance of Injured Persons.	Conveyance of Officers to and from Fires.	Miscellaneous.	Total Wagon Calls.
January	47	17	3	17	84	105	36	5	10	156	35	3	3	25	66
February	40	13	5	18	76	101	36	6	6	149	40	10	1	43	94
March	46	16	3	14	79	86	22	4	7	119	48	10	5	42	105
April	50	18	2	19	89	113	29	4	32	178	80	6	6	53	145
May	67	30	5	26	128	144	37	4	38	223	93	8	2	47	150
June	66	26	2	3	97	102	42	5	23	172	105	15	2	46	168
July	64	34	3	9	110	143	45	4	15	207	118	11	1	55	185
August	70	40	3	7	120	113	66	6	18	203	143	14	0	46	203
September	58	20	2	20	100	114	48	2	10	174	114	4	0	48	166
October	66	19	5	12	102	110	46	1	18	175	74	13	0	39	126
November	62	22	0	19	103	103	31	2	15	151	60	4	0	42	106
December	43	16	3	12	74	87	31	1	8	127	53	4	2	36	95
Totals	679	271	36	176	1,162	1,321	469	44	200	2,034	963	102	22	522	1,609

Synopsis of the Wagon Calls of the Various Patrols during the year 1896.

MONTHS.	PATROL NO. 30.				
	Conveyance of Prisoners.	Conveyance of Injured Persons.	Conveyance of Officers to and from Fires.	Miscellaneous.	Total Wagon Calls.
January	81	10	4	7	102
February	66	7	1	9	83
March	66	11	4	12	93
April	109	14	6	6	135
May	101	9	4	15	129
June	113	15	1	9	138
July	92	20	1	18	131
August	122	24	2	11	159
September	102	19	2	7	130
October	53	12	1	16	82
November	72	11	1	8	92
December	73	9	5	12	99
Totals	1,050	161	32	130	1,373

Showing the Box in each District having the greatest Number of Wagon Calls during the Year 1896.

DISTRICTS.	Number of Box.	LOCATION.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
First	122	Twenty-fifth and Christian streets	13	10	11	10	16	9	12	18	9	8	12	9	137
Second	62	Seventh and Alaska streets	44	33	24	35	39	48	35	36	31	39	23	31	413
Third	44	Sixth and Carver streets	57	58	64	58	72	73	74	69	67	64	54	66	756
Fourth	332	Third and Race streets	15	10	14	10	13	13	13	18	20	16	14	14	170
Fifth	23	Kerr and Lombard streets	17	11	10	9	14	13	6	18	11	17	15	14	155
Sixth	331	Ninth and Filbert streets	23	13	20	13	19	13	9	19	18	10	18	28	203
Seventh	23	Fifth and Wood streets	12	12	11	20	9	9	13	10	23	9	16	20	164
Eighth	17	Eighth and Wood streets	10	15	12	19	14	11	10	15	12	14	7	6	145
Ninth	15	Twenty fifth and Callowhill streets	10	21	9	21	26	22	21	24	29	19	11	9	222
Tenth	421	Second and Girard avenue	12	22	13	21	32	27	20	18	22	21	23	25	256
Eleventh	62	Richmond and Cumberland streets	7	9	11	8	9	10	12	15	10	14	10	13	128
Twelfth	7	Alder and Columbia avenue	5	8	5	14	9	5	7	10	5	6	2	6	82
Thirteenth	16	Main and Cedar streets	13	16	12	13	14	17	14	20	19	14	18	15	180
Fourteenth	6	E. Chelten avenue	1	8	2	4	9	2	10	9	4	13	12	13	87
Fifteenth	152	Frankford avenue and Oxford streets	7	5	5	5	10	7	13	8	13	2	2	7	84

Showing the Box in each District having the greatest Number of Wagon Calls during the Year 1896.

DISTRICTS.	Number of Box.	LOCATION.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Sixteenth	422	Thirty-sixth and Rockland streets	4	4	5	7	15	12	10	6	5	10	3	6	87
Seventeenth	52	Point Breeze avenue and Dickinson street	10	8	16	12	13	15	8	8	19	17	7	6	139
Eighteenth	4	Third and Columbia avenue	5	6	17	15	7	17	10	16	12	20	9	13	147
Nineteenth	53	Eighth and Sansom streets	6	18	27	16	15	17	11	11	10	15	12	8	170
Twentieth	26	Nineteenth and Market streets	60	40	42	31	38	26	44	45	44	63	12	13	458
Twenty-first	243	Forty-ninth and Woodland avenue	9	10	4	7	21	18	24	28	12	15	25	8	181
Twenty-second	37	Twenty-eighth and York streets	6	6	4	5	4	5	14	8	5	3	10	6	76
Twenty-third	21	Twenty-third and Columbia avenue	6	6	9	11	9	15	15	14	11	12	6	10	124
Twenty-fourth	55	Richmond and Williams streets	6	7	5	6	8	5	6	3	4	12	5	6	73
Twenty-fifth	35	Sixth and Dickinson streets	11	5	4	16	18	8	12	16	8	13	8	11	130
Twenty-sixth	341	Cumberland and Jasper streets	5	12	7	10	11	11	21	24	14	12	13	16	156
Twenty-eighth	36	Twenty-ninth and Edgeley streets	10	5	6	5	5	13	8	11	7	6	6	6	88
Twenty-ninth	223	Fifty-fourth and Landsdowne avenue	4	5	6	20	14	18	39	54	42	15	8	15	240
Thirtieth	38	Kensington avenue and "C" street	8	10	7	15	9	15	13	12	7	4	3	5	108

Synopsis of Wagon Calls during the year 1896.

MONTHS.	Conveyance of Prisoners.	Conveyance of Injured Persons.	Conveyance of Officers to and from Fires.	Miscellaneous.	Total Wagon Calls.
January	2,000	470	110	546	3,126
February	2,052	469	104	604	3,229
March	2,038	511	111	613	3,273
April	2,339	534	118	712	3,703
May	2,756	626	82	823	4,287
June	2,502	670	85	739	3,996
July	2,674	773	93	677	4,217
August	2,782	1,084	80	719	4,665
September	2,700	687	61	738	4,186
October	2,541	580	74	673	3,868
November	2,371	507	75	660	3,613
December	2,588	557	98	640	3,883
Totals	29,843	7,468	1,091	8,144	46,046

Number of Messages sent and received over the Telephone during 1896.

MONTHS.	Total number of messages.	Received.	Sent.	Mayor.		Director Department of Public Safety.		Director Department of Public Works.		Superintendent of Police.		Fire Headquarters.		Highway Bureau.	Water Bureau.	Gas Bureau.	Classified received and sent.	Miscellaneous received and sent.	AMBULANCE CALLS.																			Total calls and connections.
				*R.	*S.	R.	S.	R.	S.	R.	S.	R.	S.						Philadelphia.	Pennsylvania.	Episcopal.	German.	St. Mary's.	St. Agnes.	Children's.	Samaritan.	Hahnemann.	Methodist.	Presbyterian.	Jewish.	Municipal.	Jefferson.	S. P. C. A.	Medico-Chirurgical.	St. Joseph's.	University.	Total ambulance calls.	
January	2,644	1,027	1,617	1	4	17	26	...	1	13	37	20	503	56	78	24	953	1,691	85	15	20	5	2	2	1	4	2	8	2	3	19	1	4	...	...	..	173	55,000
February....	3,076	1,238	1,838	3	5	11	24	...	2	7	36	23	650	64	47	15	1,096	1,980	66	13	18	9	1	13	2	4	5	13	4	1	45	1	5	4	4	1	209	54,630
March.........	2,840	987	1,853	1	3	4	19	...	1	16	28	15	574	94	57	27	993	1,847	72	12	18	4	...	2	...	...	2	1	1	3	31	...	2	1	5	...	154	62,326
April	2,926	1,220	1,706	2	4	11	28	1	2	11	89	19	540	101	81	22	1,091	1,835	74	17	31	10	1	7	...	6	6	4	11	8	36	...	2	6	4	7	230	55,790
May............	2,521	1,123	1,398	2	4	6	15	1	2	19	20	24	314	70	81	34	809	1,712	69	15	38	15	8	13	...	5	5	2	5	9	18	...	2	5	8	...	217	53,985
June...........	2,904	1,302	1,602	1	3	5	15	1	2	18	22	18	345	70	97	35	804	2,100	69	19	22	7	5	4	...	3	4	...	1	7	20	2	3	2	2	2	172	72,207
July............	4,200	2,009	2,191	2	3	6	12	1	1	10	26	12	393	71	105	39	870	3,330	69	26	27	6	5	8	...	6	3	...	4	10	10	1	7	1	5	1	189	67,876
August	2,175	942	1,233	1	3	3	14	1	2	9	21	11	324	52	121	29	850	1,325	90	26	35	11	7	9	...	11	7	...	3	11	12	1	11	7	19	3	259	59,814
September...	2,724	1,280	1,444	1	2	10	14	1	3	14	20	22	255	60	76	24	668	2,056	35	17	22	7	3	8	...	7	7	3	5	1	33	...	7	2	6	3	166	67,183
October	2,105	985	1,170	1	2	1	19	...	...	11	25	7	365	94	98	27	828	1,277	64	4	25	8	2	7	...	5	...	1	2	...	44	3	5	...	5	3	178	76,899
November ..	1,996	842	1,154	1	2	9	18	1	2	8	16	12	292	60	58	19	683	1,313	42	19	19	3	2	5	1	6	5	...	1	6	65	...	4	2	5	..	185	74,628
December ...	2,207	987	1,220	1	2	15	15	1	3	9	12	9	345	60	69	23	765	1,442	58	13	29	9	2	7	...	...	1	...	3	5	65	1	4	2	2	...	201	79,981
Totals	32,318	13,892	18,426	17	37	98	219	8	21	145	302	192	4,900	852	968	318	10,410	21,908	793	196	304	94	38	85	4	57	47	32	42	60	398	10	56	32	65	20	2,333	780,319

* R—Received. * S—Sent.

Summary of the Operation of the Fire Alarm Telegraph in 1896.

Months.	First Alarms.	Second Alarms.	Third Alarms.	Fourth Alarms.	Fifth Alarms.	False Alarms.	Total Alarms.
January	78	3	1	....	....	1	83
February	77	5	3	2	....	2	89
March	69	9	2	1	....	....	81
April	68	4	2	1	....	2	77
May	52	2	....	....	....	....	54
June	59	3	....	....	....	....	62
July	59	1	....	....	....	....	60
August	51	3	....	....	....	1	55
September	38	3	....	....	....	....	41
October	50	....	....	....	....	....	50
November	47	1	....	....	....	....	48
December	60	4	....	....	....	....	64
Totals	708	38	8	4	....	6	764

Showing Number of Alarms for each Hour of the Day during 1896.

1896	A. M.						P. M.						Total Number of Day Alarms.	P. M.						A. M.						Total Number of Night Alarms.	Total.
MONTHS	6	7	8	9	10	11	12	1	2	3	4	5		6	7	8	9	10	11	12	1	2	3	4	5		
January	3	2	5	3	2	1	2	3	4	1	3	5	34	7	5	3	2	2	4	5	4	4	9	1	3	49	83
February	3	2	......	1	1	3	1	4	2	4	5	7	33	4	3	4	3	5	2	5	3	8	11	4	4	56	89
March	......	......	1	5	2	1	6	4	3	2	3	8	35	4	7	3	5	1	4	6	3	2	6	2	3	46	81
April	2	1	1	3	3	5	2	2	2	5	5	3	34	5	3	6	5	1	4	4	5	4	1	4	1	43	77
May	......	......	3	......	2	1	3	......	6	1	6	1	23	2	4	2	7	1	4	4	2	3	......	2	......	31	54
June	4	2	......	......	......	2	4	2	3	2	3	4	26	2	4	4	6	5	3	4	2	3	1	2	......	36	62
July	3	2	4	4	4	......	......	3	3	......	2	2	27	3	2	2	2	1	2	3	4	3	5	5	1	33	60
August	......	......	1	2	1	2	2	1	1	3	2	......	15	4	4	5	2	2	4	5	6	4	2	1	1	40	55
September	2	1	......	1	3	2	4	1	1	1	1	3	20	......	4	4	1	1	3	2	2	1	2	......	1	21	41
October	1	......	......	3	4	3	2	2	2	2	4	2	25	4	3	3	2	2	......	2	2	5	1	......	1	25	50
November	......	2	......	1	2	3	1	2	3	1	2	2	19	3	5	1	6	4	2	4	2	......	......	.....	2	29	48
December	2	3	1	......	2	6	2	1	......	2	5	6	30	5	4	1	4	4	1	1	4	4	2	1	3	34	64
Totals	20	15	16	23	26	29	29	25	30	24	41	43	321	43	48	38	45	29	33	45	39	41	40	22	20	443	764

Showing the number of Alarms from each Box during 1896.

Box.	Alarms.	Box.	Alarms.	Box.	Alarms.	Box.	Alarms.	Box.	Alarms.	Box.	Alarms.	Box.	Alarms.	Box.	Alarms.	Total.
2	3	42	......	83	1	142	......	178	......	227	4	264	1	312	......	
3	......	43	......	84	8	143	......	179	......	228	4	265	......	313	2	
4	3	45	6	85	......	144	......	181	......	229	1	266	4	314	1	
5	......	46	......	86	......	145	2	182	2	231	1	267	......	315	1	
6	5	47	3	87	......	146	1	183	......	232	2	268	......	316	1	
7	4	48	......	89	3	147	5	184	......	233	2	269	......	317	3	
8	1	49	1	91	12	148	2	185	......	234	8	271	1	318	......	
9	2	51	1	92	2	149	1	186	......	235	......	272	......	319	......	
12	6	52	4	93	1	151	1	187	......	236	8	273	......	321	2	
13	3	53	......	94	2	152	8	188	......	237	......	274	......	322	......	
14	2	54	1	95	......	153	2	189	......	238	......	275	......	323	......	
15	1	56	5	96	1	154	......	191	......	239	2	276	1	324	......	
16	1	57	......	97	......	155	......	192	......	241	1	277	......	325	4	
17	......	58	1	98	......	156	......	193	......	242	......	278	2	326	1	
18	1	59	......	121	......	157	3	194	1	243	......	279	......	327	......	
19	1	61	2	122	1	158	2	195	......	244	......	281	......	328	4	
21	......	62	3	123	......	159	2	196	......	245	......	282	5	329	1	
23	......	63	1	124	1	161	2	197	2	246	8	283	......	331	......	
24	3	64	1	125	3	162	2	198	1	247	2	284	......	332	......	
25	......	65	......	126	1	163	1	199	......	248	1	285	......	334	......	
26	......	67	......	127	......	164	1	212	......	249	......	286	1	335	......	
27	1	68	2	128	1	165	1	213	......	251	......	287	......	336	......	
28	2	69	......	129	1	166	......	214	1	252	......	288	1	337	......	
29	5	71	......	131	......	167	1	215	1	253	1	289	1	338	1	
31	1	72	......	132	1	168	......	216	2	254	......	291	......	339	......	
32	......	73	2	133	1	169	2	217	......	255	1	292	4	341	......	
34	......	74	2	134	......	171	......	218	2	256	2	293	......	342	......	
35	......	75	1	135	......	172	......	219	......	257	1	294	5	343	2	
36	3	76	5	136	......	173	......	221	......	258	3	295	1	344	5	
37	2	78	2	137	......	174	1	223	......	259	3	296	1	345	......	
38	1	79	......	138	......	175	1	224	......	261	2	297	1	346	......	
39	2	81	......	139	......	176	......	225	3	262	6	298	2	347	1	
41	1	82	......	141	3	177	......	226	......	263	......	299	2	348	......	

Showing the Number of Alarms—Continued.

Box.	Alarms.	Box.	Alarms.	Box.	Alarms.	Box.	Alarms.	Box.	Alarms.	Box.	Alarms.	Box.	Alarms.	Box.	Alarms.	Tota.
349	1	386	....	434	4	472	1	519	1	557	2	594	......	642	1	
351	1	387	......	435	......	473	1	521	1	558	......	595	......	643	......	
352	2	388	......	436	1	474	......	522	......	559	......	596	1	644	......	
353	......	389	1	437	1	475	......	523	5	561	1	597	......	645	1	
354	......	391	4	438	......	476	......	524	1	562	......	598	2	646	1	
355	......	392	1	439	1	477	....	525	1	563	1	599	......	647	......	
356	2	393	3	441	......	478	1	526	......	564	1	612	......	648	1	
357	......	394	......	442	1	479	......	527	......	565	1	613	......	649	1	
358	1	395	......	443	......	481	2	528	1	566	1	614	......	651	......	
359	......	396	2	445	......	482	......	529	4	567	1	615	......	652	......	
361	8	397	1	446	1	483	3	531	......	568	......	616	......	653	.....	
362	2	398	2	447	2	484	......	532	......	569	......	617	......	654	2	
363	1	399	......	448	1	485	2	533	......	571	3	618	......	655	......	
364	......	412	......	449	8	486	......	534	......	572	1	619	......	656	......	
365	1	413	......	451	......	487	2	535	2	573	......	621	......	657	......	
366	......	414	......	452	......	488	1	536	1	574	1	622	1	658	......	
367	1	415	......	453	2	489	1	537	4	575	1	623	1	659	1	
368	......	416	3	454	......	491	......	538	1	576	2	624	1	661	1	
369	......	417	......	455	2	492	......	539	1	577	......	625	......	662	......	
371	1	418	1	456	......	493	......	541	......	578	......	626	......	663	......	
372	......	419	2	457	......	494	1	542	1	579	......	627	1	664	......	
373	1	421	2	458	......	495	4	543	5	581	1	628	......	665	......	
374	2	422	......	459	......	496	......	544	......	582	......	629	......	667	......	
375	2	423	1	461	......	497	......	545	8	583	......	631	......	668	1	
376	......	424	......	462	2	498	2	546	......	584	1	632	......	669	......	
377	......	425	.... .	463	......	499	1	547	3	585	......	633	......	671	2	
378	1	426	......	464	......	512	5	548	......	586	1	634	1	672	......	
379	......	427	......	465	......	513	6	549	2	587	3	635	1	673	......	
381	......	428	......	466	......	514	.....	551	......	588	1	636	......	674	1	
382	2	429	1	467	......	515	1	552	1	589	......	637	2	675	......	
383	2	431	4	468	......	516	......	553	......	591	......	638	1	676	1	
384	.. ...	432	3	469	1	517	1	554	5	592	2	639	2	677	1	
385	......	433	1	471	......	518	......	556	......	593	......	641	......	678	2	

Showing the Number of Alarms—Continued.

Box.	Alarms.	Box.	Alarms.	Box.	Alarms.	Box.	Alarms.	Box.	Alarms.	Box.	Alarms.	Box.	Alarms.	Box.	Alarms.	Total.
679	3	727	1	764	......	813	1	849	......	886	......	935	......	972	......	
681	2	728	......	765	3	814	1	851	......	887	.....	936	......	973	......	
682	......	729	......	766	1	815	......	852	......	889	......	937	......	974	1	
683	......	731	1	767	......	816	5	853	1	891	3	938	......	975	......	
684	2	732	1	768	1	817	......	854	......	892	......	939	......	976	1	
685	2	733	......	769	1	818	1	855	......	893	1	941	1	977	......	
686	......	734	......	771	2	819	......	856	2	894	......	942	2	978	3	
687	1	735	......	772	1	821	......	857	......	895	.. ...	943	......	979	......	
688	1	736	......	773	......	822	......	858	......	896	......	944	......	981	......	
689	......	737	......	774	1	823	......	859	3	897	1	945	......	982	......	
691	......	738	......	775	......	824	2	861	......	898	1	946	......	983	......	
692	......	739	1	776	......	825	2	862	......	899	......	947	......	984	2	
693	4	741	2	778	......	826	1	863	1	912	2	948	......	985	1	
694	1	742	......	779	1	827	1	864	......	913	......	949	......	986	2	
695	......	743	......	781	......	828	2	865	......	914	......	951	3	987	......	
696	......	744	......	782	2	829	......	866	......	915	.....	952	2	988	......	
697	......	745	......	783	2	831	2	867	......	916	......	953	......	989	......	
698	......	746	6	784	1	832	2	868	......	917	......	954	......	991	......	
699	2	747	1	785	3	833	......	869	......	918	2	955	......	992	......	
712	5	748	1	786	3	834	......	871	......	919	......	956	5	993	......	
713	3	749	......	787	......	835	2	872	.. ...	921	1	957	......	994	1	
714	......	751	2	788	1	836	.....	873	2	922	......	958	2	995	......	
715	3	752	2	789	1	837	......	874	......	923	......	959	1	996	......	
716	......	753	3	791	......	838	1	875	......	924	1	961	......	997	......	
717	1	754	1	792	2	839	......	876	......	925	1	962	......	998	......	
718	......	755	......	793	......	841	2	877	1	926	......	963	4	1212	......	
719	......	756	1	794	......	842	2	878	......	927	......	964	3	1213	1	
721	1	757	3	795	1	843	......	879	......	928	......	965	......	1214	1	
722	2	758	......	796	1	844	......	881	2	929	......	966	......	1215	4	
723	......	759	......	797	......	845	1	882	......	931	......	967	2	1216	......	
724	......	761	2	798	1	846	......	883	......	932	......	968	......	1217	......	
725	.....	762	3	799	.. ..	847	.....	884	1	933	......	969	......	1218	1	
726	......	763	3	812	......	848	......	885	2	934	......	971	......	1219	......	

Showing the Number of Alarms—Continued.

Box.	Alarms.	Box.	Alarms.	Box.	Alarms.	Box.	Alarms.	Box.	Alarms.	Box.	Alarms.	Box.	Alarms.	Box.	Alarms.	Box.	Alarms.	Total.
1221	......	1258	2	1296	......	1346	.....	1383	......	1431	......	1468	......	1516	......	
1223	1	1259	1	1297	1	1347	......	1384	......	1432	......	1469	......	1517	......	
1224	......	1261	......	1298	......	1348	......	1385	......	1433	......	1471	......	1518	.....	
1225	......	1262	1	1299	......	1349	......	1386	......	1434	......	1472	......	1519	......	
1226	......	1263	......	1312	......	1351	......	1387	.....	1435	......	1473	......	1521	......	
1227	1	1264	1	1314	......	1352	......	1388	......	1436	......	1474	......	1522	......	
1228	......	1265	......	1315	1	1353	......	1389	......	1437	......	1475	......	1523	......	
1229	......	1266	2	1316	......	1354	......	1391	......	1438	......	1476	......	1524	......	
1231	......	1267	1	1317	1	1355	......	1392	......	1439	......	1477	......	1525	......	
1232	......	1268	3	1318	......	1356	......	1393	......	1441	......	1478	.....	1526	......	
1233	......	1269	1	1319	......	1357	......	1394	......	1442	......	1479	......	1527	......	
1234	......	1271	1	1321	......	1358	......	1395	......	1443	......	1481	......	1528	......	
1235	1	1272	......	1322	......	1359	......	1396	......	1445	......	1482	......	1529	......	
1236	......	1273	......	1323	......	1361	......	1397	......	1446	......	1483	......	1531	......	
1237	......	1274	1	1324	......	1362	......	1398	......	1447	......	1484	......	1532	......	
1238	1	1275	......	1325	2	1363	......	1399	......	1448	......	1485	......	1533	......	
1239	......	1276	......	1326	......	1364	......	1412	......	1449	......	1486	......	1534	......	
1241	......	1277	......	1327	......	1365	......	1413	......	1451	......	1487	......	1535	......	
1242	3	1278	......	1328	......	1366	......	1414	......	1452	......	1488	......	1536	......	
1243	1	1279	......	1329	......	1367	......	1415	......	1453	......	1489	......	1537	......	
1244	1	1281	......	1331	......	1368	......	1416	......	1454	......	1491	......	1538	......	
1245	2	1282	1	1332	......	1369	......	1417	......	1455	......	1492	......	1539	......	
1246	......	1283	......	1334	....	1371	......	1418	......	1456	......	1493	......	1541	......	
1247	......	1284	......	1335	......	1372	.....	1419	......	1457	......	1494	......	1542	......	
1248	2	1286	......	1336	......	1373	......	1421	......	1458	......	1495	......	1543	......	
1249	......	1287	......	1337	......	1374	......	1422	......	1459	......	1496	......	1544	......	
1251	......	1288	3	1338	......	1375	......	1423	......	1461	......	1497	2	1545	......	
1252	1	1289	......	1339	......	1376	......	1424	......	1462	......	1498	......	1546	......	
1253	......	1291	......	1341	......	1377	......	1425	......	1463	......	1499	2	1547	......	
1254	1	1292	......	1342	......	1378	......	1426	......	1464	......	1512	......	1548	......	
1255	......	1293	......	1343	......	1379	......	1427	......	1465	......	1513	......	1549	......	
1256	1	1294	......	1344	......	1381	......	1428	......	1466	......	1514	......	1551	......	
1257	1	1295	......	1345	......	1382	......	1429	......	1467	......	1515	......	1552	......	

Showing the Number of Alarms—Continued.

Box.	Alarms.	Box.	Alarms.	Box.	Alarms.	Box.	Alarms.	Box.	Alarms.	Box.	Alarms.	Box.	Alarms.	Box.	Alarms.	Total.
1553	......	1572	......	1589	......	1618	......	1636	......	1654	......	1673	......	1691	......	
1554	......	1573	......	1591	......	1619	......	1637	......	1655	......	1674	......	1692	......	
1556	......	1574	......	1592	......	1621	......	1638	......	1656	......	1675	......	1693	......	
1557	......	1575	......	1593	......	1622	......	1639	......	1657	......	1676	......	1694	......	
1558	......	1576	......	1594	......	1623	......	1641	......	1658	......	1677	......	1695	......	
1559	......	1577	......	1595	......	1624	......	1642	......	1659	......	1678	......	1696	......	
1561	1	1578	......	1596	......	1625	......	1643	......	1661	......	1679	......	1697	......	
1562	......	1579	......	1597	......	1626	......	1644	......	1662	......	1681	......	1698	......	
1563	......	1581	......	1598	......	1627	......	1645	......	1663	......	1682	......	1699	......	
1564	......	1582	......	1599	......	1628	......	1646	......	1664	......	1683	......			
1565	......	1583	......	1612	......	1629	......	1647	......	1665	......	1684	......			
1566	......	1584	......	1613	......	1631	......	1648	......	1667	......	1685	......			
1567	......	1585	......	1614	......	1632	......	1649	......	1668	......	1686	......			
1568	......	1586	......	1615	......	1633	......	1651	......	1669	......	1687	......			
1569	......	1587	......	1616	......	1634	......	1652	......	1671	......	1688	......			
1571	......	1588	......	1617	......	1635	......	1653	......	1672	......	1689	......			
......		......		......		......		......		......		......		......		

Showing the Number of Permits issued to each Company, and the purpose for which granted.

	OVERHEAD.							UNDERGROUND.			
	WIRES.				POLES.						
	Running of New	Repairs to and Removal of	Removal of	Suspension of Aerial Cables.	Erection of	Resetting of	Removal of	Approval of New Work.	To make Service Connections.	General Repairs.	Totals.
American District Telegraph Company	12	8	1								21
American Telephone and Telegraph Company	2	4								1	7
Ammonia Company of Philadelphia		1									1
Atlantic Refining Company		2									2
Baltimore and Ohio Telegraph Company		1			1						2
Bankers and Merchants' Telegraph Company		6									6
Bell Telephone Company of Philadelphia	669	57	38	9	7	2	1	2	6	30	821
Brush Electric Light Company	85	18	1		14	19	4		17	3	161
Bureau of Gas		2									2
Bureau of Water		3									3
Cheltenham Electric Light, Heat and Power Company	1	1									2
Columbia Electric Light Company		1							2	1	4

Showing the Number of Permits issued to each Company, etc.—Continued.

	OVERHEAD.							UNDERGROUND.			
	WIRES.				POLES.						
	Running of New	Repairs to and Removal of	Removal of	Suspension of Aerial Cables.	Erection of	Resetting of	Removal of	Approval of New Work.	To make Service Connections.	General Repairs.	Totals.
Diamond Electric Company	63	4			4	5					76
Edison Electric Light Company								5	113	136	254
Electric Traction Company	22	26	7		7	34	4			25	125
Germantown Electric Light Company	9	2			6	7					24
Harrison Brothers & Co.		1									1
Hestonville, Mantua and Fairmount Pass. R. W. Co.	3	10				4	2			10	29
Holmesburg, Tacony and Frankford Electric R. W. Co.	2			2	1	6					11
Kensington Electric Company	21	2	1		1	1			3	1	30
Knickerbocker Ice Company	1	2									3
Manayunk and Roxborough Incline Plane & R. W. Co.					3	1					4
Manufacturers' Electric Company	33	3			4	8					48
Mutual Union Telegraph Company						1					1

Showing the Number of Permits issued to each Company, etc.—Continued.

	OVERHEAD.							UNDERGROUND.			
	WIRES.				POLES.						
	Running of New	Repairs to and Removal of	Removal of	Suspension of Aerial Cables.	Erection of	Resetting of	Removal of	Approval of New Work.	To make Service Connections.	General Repairs.	Totals.
Northern Electric Light and Power Company	81	6	....	....	2	2	....	....	....	....	91
Pennsylvania Railroad Company	10	13	....	....	2	....	....	....	....	....	25
People's Passenger Railway Company	15	26	1	1	7	16	5	1	....	25	97
Philadelphia Local Telegraph Company	....	8	....	....	....	6	....	....	....	....	14
Philadelphia, Reading and Pottsville Telegraph Co.	25	7	1	....	2	9	1	....	....	....	45
Philadelphia Traction Company	57	61	6	5	18	40	8	....	....	50	245
Postal Telegraph Cable Company	36	7	....	....	....	3	....	....	....	....	46
Pneumatic Fire Alarm Telegraph Company	....	2	....	....	....	....	....	....	....	....	2
Powelton Electric Company	55	2	....	....	9	5	....	....	....	....	71
Southern Electric Light and Power Company	34	2	....	....	4	6	1	....	....	....	47
Suburban Electric Company	17	3	....	....	6	6	....	....	....	....	32
Standard Telephone and Telegraph Company	....	....	....	....	....	....	....	18	....	....	18

Showing the Number of Permits issued to each Company, etc.—Continued.

	OVERHEAD.							UNDERGROUND.			
	WIRES.				POLES.						
	Running of New	Repairs to and Removal of	Removal of	Suspension of Aerial Cables.	Erection of	Resetting of	Removal of	Approval of New Work.	To make Service Connections.	General Repairs.	Totals.
United States Electric Lighting Company of Penna......	40	....	....	....	3	4	....	....	....	....	47
West End Electric Company..	4	2	....	....	1	1	....	....	1	4	13
Western Union Telegraph Company..........................	45	38	6	1	1	21	2	....	....	....	114
Wissahickon Electric Light Company.........................	14	2	....	....	4	1	....	....	....	....	21
Totals...	1,356	333	62	18	107	208	28	26	142	286	2,566

Number of Miles of Overhead and Underground Wires.

Name of Company.	Mileage of wire on City Poles.	Mileage of wire on other Poles.	Mileage of wire on fix-t'r's & bl'gs.	Total.
American District Telegraph Co.......	8.33	5.00	92.42	105.75
American Telephone & Telegraph Co.	....	111.06	76.02	187.08
Ammonia Company of Philadelphia..	1.50	2.25	....	3.75
Atlantic and Pacific Telegraph Co.....	.62	12.94	....	18.56
Atlantic Refining Company...............	10.00	10.00	12.00	32.00
Baltimore and Ohio Telegraph Co......	2.00	....	....	2.00
Bell Telephone Co. of Philadelphia...	56.30	582.90	417.80	1,057.00
Brush Electric Light Company.........	66.02	179.25	....	245.27
Cheltenham Electric Light, Heat and Power Co..	....	5.00	....	5.00
Diamond Electric Company..............	17.46	75.81	....	93.27
Electric Traction Company...............	....	134.62	....	134.62
Elkinton, Jos. S. and Thomas............	8.00	....	....	8.00
Fairmount Park and Haddington P R. W. Company..................................	....	4.36	....	4.36
Germantown Electric Light Co..........	15.80	70.71	....	86.51
Girard Point Storage Company.........	10.00	....	....	10.00
Harrison Brothers and Company.....	4.58	5.50	.50	10.58
Hestonville, Mantua and Fairmount P. R. W. Company..........................	....	25.28	....	25.28
Hestonville and Overbrook P. R. W. Company..	....	.15	....	.15
Holmesburg, Tacony and Frankford Electric R. W. Company.................	....	50.82	....	50.82
Kensington Electric Company..........	12.00	25.00	....	37.00
Knickerbocker Ice Company............	14.00	....	....	14.00
Manayunk and Roxborough Incline Plane and R. W. Co.........................	....	31.00	....	31.00
Manufacturers Electric Company......	34.06	110.91	....	144.97
Mutual Union Telegraph Company...	....	366.48	....	366.48
Northern Electric Light and Power Company..	36.00	114.00	....	150.00
Pennsylvania Railroad Company......	5.00	44.23	....	49.23
Peoples Traction Company.	....	108.24	....	108.24
Philadelphia Local Telegraph Co......	1.60	22.15	7.05	30.80
Philadelphia Local Telegraph Co......	3.00	28.65	.11	31.76

Number of Miles of Overhead and Underground Wires—Continued.

Name of Company.	Mileage of wire on City Poles.	Mileage of wire on other Poles.	Mileage of wire on fix-t'r's & bl'gs.	Total.
Philadelphia, Reading and Pottsville Telegraph Company	6.82	50.63		57.45
Philadelphia Traction Company		283 91		283.91
Pneumatic Fire Alarm Telegraph Co.	1.00		20.00	21.00
Postal Telegraph Cable Company	3.40	191.08	27.50	221.98
Powelton Electric Company	28.00	79.30		107.30
Southern Electric Light and Power Company	35.30	144.60		179.90
Suburban Electric Company	14.00	173.50		187.50
United States Electric Lighting Co.	17.10	60.10		77.20
West End Electric Company	1.17	11.75		12.92
Western Union Telegraph Company	1.19	478.67		479.86
Wissahickon Electric Light Company.	7.49	14.56		22.05
Wissahickon Electric P. R. W. Co.		6.00		6.00
City Wires				1,440.57
Total Overhead Wires	421.74	3,620.41	653.40	6,136.12

Underground Wires.	Electric l'ht and power wires.	Teleph'ne & Telegraph wires.	Total.
American Telephone and Telegraph Company		882.34	882.34
Bell Telephone Company of Philadelphia		16,320.41	16,320.41
Brush Electric Light Company	53.43		53.43
Columbia Electric Light Company	12.06		12.06
Edison Electric Light Company	137.37		137.37
Electric Traction Company	212.01		212,01
Fairmount Park and Haddington P. R. W. Company	1.06		1.06
Girard Estate	1.40		1.40
Hestonville, Mantua and Fairmount P. R. W. Company	23.40		23.40

Number of Miles of Overhead and Underground Wires— Continued.

Underground Wires.	Electric l'ht and power wires.	Teleph'ne & telegraph wires.	Total.	
Kensington Electric Company..........	4.00	....	4.00	
Keystone Electric Light Company.....	11.15	....	11.15	
Manayunk and Roxborough Incline Plane and R. W. Company	6.00	....	6.00	
Manufacturers' Electric Company......	5.14	....	5.14	
Northern Electric Light and Power Company,....................................	7.66	....	7.66	
Pennsylvania Railroad Company......	....	83.22	83.22	
Peoples Traction Company...............	129.20	....	129.20	
Philadelphia Traction Company........	596.28	....	596.28	
Postal Telegraph Cable Company	....	471.08	471.08	
West End Electric Company..............	14.20	....	14.20	
Western Union Telegraph Company..	....	362.85	362.85	
City..	43.42	1,918.00	1,961.42	
Total Underground Wires...........	1,257.78	20,037.90	21,295.68	21,295.68
Total Overhead and Underground Wires..				27,431.80

Summary of Underground Conduits.

	Number of Conduits.	Length in Feet.	Number of Ducts.	Length in Feet.	Miles of Ducts.
American Telephone and Telegraph Co..	74	261,968	635	1,925,652	364.71
Bell Telephone Company of Philadelphia	512	296,163	3,778	2,329,261	441.15
Brush Electric Light Co........................	12	57,340	686	1,164,593	221.32
Columbia Electric Co.............................	11	14,658	46	74,457	14.10
Drexel & Co...	1	559	1	559	.11
Edison Electric Light Co........................	438	287,005	1,514	491,347	93.05
Electric Traction Co..............................	108	218,049	1,298	2,508,851	475.16
Fairmount Park and Haddington Pas'gr R. W. Co...	2	5,193	10	21,156	4.
Girard Estate..	1	5,250	4	21,000	3.97
Hestonville, Mantua and Fairmount P. R. W. Co.,.......................................	13	37,455	80	214,812	40.68
Kensington Electric Co........................	2	10,800	15	85,800	16.25
Keystone Light and Power Co................	20	5,543	20	5,543	1.05
Manufacturers' Electric Co...................	5	4,700	85	37,800	7.16
Northern Electric Light and Power Co...	21	20,837	125	154,765	29.31
Penn Electric Light Co.........................	58	122,186	302	475,609	90.08
Pennsylvania Heat, Light and Power Co.	2	1,128	96	33,186	6.29
People's Traction Co............................	42	166,571	326	1,021,840	193.53
Philadelphia Standard Telephone Co......	4	6,892	1,519	516,421	97.81
Philadelphia Traction Co......................	482	590,083	4,913	4,928,104	933 35
Strawbridge & Clothier.........................	1	45	50		
West End Electric Co............................	8	14,410	50	94,470	17.94
City	40	221,160	293	1,542,775	292.19
Total..	1,852	2,847,995	15,796	17,648,001	3,348.21

Number of Electric Arc Lights in each Ward together with the Number of Free Lights, December 31, 1896.

	Number of Lights Overhead.	Number of Lights Underground.	TOTAL.
First Ward	190	....	190
Second Ward	120	17	137
Third Ward	104	34	138
Fourth Ward	130	3	133
Fifth Ward	145	....	145
Sixth Ward	118	14	132
Seventh Ward	155	12	167
Eighth Ward	128	31	159
Ninth Ward	89	60	149
Tenth Ward	119	7	126
Eleventh Ward	111	....	111
Twelfth Ward	112	....	112
Thirteenth Ward	96	11	107
Fourteenth Ward	111	28	139
Fifteenth Ward	113	112	225
Sixteenth Ward	137	....	137
Seventeenth Ward	131	....	131
Eighteenth Ward	161	....	161
Nineteenth Ward	186	23	209
Twentieth Ward	193	13	206
Twenty-first Ward	144	....	144
Twenty-second Ward	194	....	194
Twenty-third Ward	192	....	192
Twenty-fourth Ward	169	30	199
Twenty-fifth Ward	144	....	144
Twenty-sixth Ward	105	51	156
Twenty-seventh Ward	259	....	259
Twenty-eighth Ward	117	....	117
Twenty-ninth Ward	161	23	184
Thirtieth Ward	139	38	177
Thirty-first Ward	159	....	159
Thirty-second Ward	175	46	221
Thirty-third Ward	136	....	136

Number of Electric Arc Lights, etc.—Continued.

	Number of Lights Overhead.	Number of Lights Underground.	TOTAL.
Thirty-fourth Ward	156	…………	156
Thirty-fifth Ward	311	…………	311
Thirty-sixth Ward	136	21	157
Thirty-seventh Ward	84	18	102
Thirty-eighth Ward	127	20	147
South Street Bridge	6	…………	6
Chestnut Street Bridge	4	…………	4
Market Street Bridge	…………	4	4
Callowhill Street Bridge	13	…………	13
Girard Avenue Bridge	4	…………	4
Walnut Street Bridge	…………	21	21
Falls of Schuylkill Bridge	7	…………	7
Total	5,595	637	6,228
GIRARD ESTATE LIGHTS.			
Delaware avenue, from Vine to South street	27	…………	
Front Street, from Vine to South street	…………	23	
Total Girard Estate Lights	…………	…………	50
FREE LIGHTS.			
Diamond Company	10		
Kensington Company	10		
Manufacturers' Company	10		
Powelton Company	10		
Southern Company	10		
West End Company	15		
Suburban Company	5		
Northern Company	10		
Peoples' Traction Company	3		
Total Free Lights	…………		83
Grand Total	…………		6,361

Return of License Charges for Attachment to City Poles, Maintenance of Poles, Erection of Poles, and Mileage of Wire Overhead for the year 1896.

	Attachments.		Maintenance of Poles.		Erection of Poles.		Wires on City Poles.		Wire on other Poles and Buildings.		Total.		Total Charges.
	Paid.	Unpaid.	Paid.	Unpaid.	Paid.	Unpaid.	Paid.	Unpaid.	Paid.	Unpaid.	Paid.	Unpaid.	
American District Telegraph Co.	$205 50		$9 00				$52 50		$205 00		$472 00		$472 00
American Telephone and Telegraph Co.			96 00						412 50		508 50		508 50
Ammonia Company of Philadelphia	28 00		6 00				5 00		5 00		44 00		44 00
Atlantic and Pacific Telegraph Co.	4 00		296 00				2 50		35 00		337 50		337 50
Atlantic Refining Co.	168 50		4 00				25 00		50 00		247 50		247 50
Baltimore and Ohio Telegraph Co.	46 00						5 00				51 00		51 00
Bankers' and Merchants' Telegraph Co.				$549 00						$927 50		$1,476 50	1,476 50
Bell Telephone Co. of Philadelphia	1,830 00		1,450 00		$340 00		272 50		1,830 00		5,722 50		5,722 50
Brush Electric Light Co.	916 50		1,636 00		110 00		350 00		1,000 00		4,012 50		4,012 50
Cheltenham Electric Light, Heat & Power Co.			58 00						25 00		83 00		83 00
Diamond Electric Co.	147 00		757 00		35 00		80 40		325 00		1,844 00		1,344 00
Elkinton, Joseph S. & Thomas	125 00						20 00				145 00		145 00
Germantown Electric Light Co.	286 00		787 00		115 00		80 00		350 00		1,618 00		1,618 00
Girard Point Storage Co.	69 00						30 00				99 00		99 00
Harrison Brothers & Co.	76 50		44 00				12 50		15 00		148 00		148 00
Kensington Electric Co.	235 00		316 00		35 00		60 00		120 00		766 00		766 00

Return of License Charges for Attachment to City Poles, etc.—Continued.

	Attachments.		Maintenance of Poles.		Erection of Poles.		Wires on City Poles.		Wire on other Poles and Buildings.		Total.		Total Charges.
	Paid.	Unpaid.	Paid.	Unpaid.	Paid.	Unpaid.	Paid.	Unpaid.	Paid.	Unpaid.	Paid.	Unpaid.	
Knickerbocker Ice Co.	$184 00						$35 00				$169 00		$169 00
Manufacturers Electric Co.	791 50		$862 00		$90 00		170 00		$540 00		2,153 50		2,453 50
Mutual Union Telegraph Co.			549 00						930 00		1,479 00		1,479 00
Northern Electric Light and Power Co.	603 50		662 00				170 00		540 00		1,975 50		1,975 50
Pennsylvania Railroad Co.	66 00		76 00				10 00		112 50		264 50		264 50
Philadelphia Local Telegraph Co.	86 50		454 00				12 50		152 50		705 50		705 50
Philada., Reading & Pottsville Telegraph Co.		$98 00		$205 00				$12 50		$235 00		$550 50	550 50
Pneumatic Fire Alarm Telegraph Co.	53 50						10 00		50 00		113 50		113 50
Powelton Electric Co.	485 50		1,225 00		330 00		100 00		390 00		2,530 50		2,530 50
Southern Electric Light and Power Co.	509 00		1,540 00		155 00		120 00		735 00		3,059 00		3,059 00
Suburban Electric Co.	188 00		1,764 00		10 00		105 00		875 00		2,942 00		2,942 00
United States Electric Light Co.	378 00		482 00		30 00		85 00		275 00		1,250 00		1,250 00
West End Electric Co.	14 00		124 00		5 00		5 00		50 00		198 00		198 00
Western Union Telegraph Co.	5 00			785 00			2 50			1,225 00	7 50	2,010 00	2,017 50
Wissahickon Electric Light Co.	63 00		245 00		30 00		25 00		70 00		433 00		433 00
Total	$7,514 50	$93 00	$13,442 00	$1,539 00	$1,285 00		$1,815 00	$12 50	$9,0[illegible]2 50	$2,3[illegible]7 50	$33,179 00	$4,037 00	$37,216 00

Appropriations to the Department of Public Safety (Electrical Bureau), with the Expenditures and Balances for the year 1896.

General Appropriation.		Amount appropria'd.	Amount counters'g'd	Balance merging.	Balance not merging
Items.					
1. For salaries:					
Chief	$5,000 00				
Manager	3,000 00				
Assistant manager	1,600 00				
Assistant manager	1,500 00				
Chief clerk	2,000 00				
First assistant clerk	900 00				
Second assistant clerk and messenger	750 00				
Stenographer and typewriter	500 00				
Draughtsman	1,000 00				
Chief line inspector $1,200, uniform $40	1,240 00				
Eight inspectors, $1,180 each, uniforms $40 each	9,760 00				
Seventeen operators at $1,100 each, and $40 for uniforms each	19,380 00				
Foreman $900, and $40 for uniform	940 00				
Eight linemen at $850 each, and $40 for uniforms each	7,120 00				
Batteryman	900 00				
Electrical plumber, $1,000, and unif'm $40	1,040 00				
Two assistant electrical plumbers, $900, and $40 for uniforms each	1,880 00				
Two janitors, $250 each	500 00				
	$59,010 00				
Transferred from Item 15, ordinance app'd July 2, 1896	960 00				
	$59,970 00				
Transferred from, ordinance Oct. 10, 1896	550 00				
		$59,420 00	$58,195 75	$1,224 25	
2. For repairs, instruments, supplies, and labor	$15,000 00				
Received by transfer, ordinance approved Oct 10, 1896	2,750 00				
Received by transfer, ordinance approved Dec. 10, 1896	1,500 00				
		19,250 00	18,763 35	486 65	
3. For iron posts, mast arms, hauling, supplies, materials and labor	$5,000 00				
Transferred from ordinance approved Oct. 10, 1896	2,500 00				
Transferred from ordinance approved Dec. 10, 1896	700 00				
		1,800 00	1,762 26	37 74	

Appropriations, Expenditures and Balances—Continued.

General Appropriation.	Amount appropria'd.	Amount counters'g'd	Balance merging.	Balance not merging
Items.				
4. For maintenance and keep of horse and wagon......................	$400 00	$88 17	$311 83	
5. For hire of horse and wagon for Chief line inspector.................	400 00	400 00		
6. For acids, batteries, and materials............ 6,500 00 Transferred from, ordinance approved Dec. 10, 1896.................... 300 00	6,200 00	6,136 91	63 09	
7. For stationery, printing, advertising, car fares, car tickets, and incidentals................ $3,500 00 Received by transfer, ordinance approved July 2,1 96............... 500 00 Received by transfer, ordinance approved Oct. 10, 1896.............. 1,000 00 Received by transfer, ordinance approved Dec. 10, 1896.............. 1,000 00	6,000 00	5,994 22	5 78	
8 For painting telegraph poles, electric-light poles, cross-arms, mast-arms, and patrol booths...	2,000 00	1,999 41	59	
9. For ice..	100 00	97 34	2 66	
10. For the improvement and extension of the Police and Fire Telegraph................................	7,000 00	6,950 18	49 82	
11. For the purchase and rent of telephones, purchase of materials and instruments, extension of the lines and hospital and armory service, including Brigade Headquarters National Guards of Pennsylvania, Presbyterian, Children's Homœopathic, St. Mary's, Orthopædic, Samaritan, Jefferson, West Philadelphia for Women, St. Agnes' and University Hospitals, at $100 each, $6,700 00 An Ordinance to pay rent of telephone for St. Christopher's Hospital for children, Lawrence and Huntingdon streets... ...... 100 00 And Naval Reserves for services for the year 1894–95 and 1896. Approved Mar. 16, 1896.. 300 00 An Ordinance extending telephone service to Manayunk. Approved May 25, 1896... 850 00	7,450 00	7,392 27	57 73	

Appropriations, Expenditures and Balances—Continued.

General Appropriation.	Amount appropria'd.	Amount counters'g'd	Balance merging.	Balance not merging
Items.				
12. For the improvement and extension of the police signal and telephone service......................	$5,000 00	$4,968 59	$31 41	
13. For cables, conduits, manhole covers, iron posts, mast arms, hauling, cartage, materials and labor for underground electrical service.................. $20 000 00 Rec'd by transfer, ord. Oct. 10, 1896................ 7,000 00 Rec'd by transfer, ord. Dec. 10, 1896..... .... 2.500 00	29,500 00	28,774 77	725 23	
14. For labor, lamps, wiring, materials, current, and repairs for police, patrol and fire stations, and fountain in Ontario Park...	3,000 00	$2,790 69	209 31	
15. For electric lighting... $800,000 00 Transferred from, ord. approved July 2, 1896 1,460 00 $798,540 00 Transferred from, ord. app'd Oct. 10, 1896...... 700 00	797,840 00	789,821 67	2,066 58	5,951 75
16. For purchase and laying of underground conduits and constructing manholes............ $50,000 00 Transferred from, ord. app'd Oct. 10, 1896...... 7,000 00	43,000 00	42,741 69	258 31	
17. An Ordinance to make an appropriation to reimburse the Postal Telegraph Cable Company for the construction of ducts along Marble Alley, west from Tenth street to Cameronian court, and south along Cameronian court to the rear of 1031 Chestnut street. App'd April 2, 1896......	1,085 38	1,085 38		
18. An Ordinance to make an appropriation to pay the rental of lot of ground now used by the Electrical Bureau for the purpose of storing and shaving poles, at Germantown Junction. Approved April 13, 1896..	100 00	100 00		
Totals................................	$989,545 38	$978,062 65	$5,530 98	$5,951 75